DEPARTMENT OF REHABILITATION
Employment, Independence & Equality

A Report for

California Department of Rehabilitation

Electronic Records System Feasibility Study Report - Final v6

December 29, 2006
Engagement: 220842260

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1.0 Executive Project Approval Transmittal

Information Technology Project Request

Feasibility Study Report
Executive Approval Transmittal

Department Name		
Department of Rehabilitation		
Project Title (maximum of 75 characters)		
Electronic Records System		
Project Acronym	**Department Priority**	**Agency Priority**
ERS	1	1

APPROVAL SIGNATURES

I am submitting the attached Feasibility Study Report (FSR) in support of our request for the Department of Finance's approval to undertake this project.

I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached Feasibility Study Report.

Chief Information Officer		**Date Signed**
Printed name:	Gigi Smith	
Information Security Officer		**Date Signed**
Printed name:	Jennifer Harris	
Budget Officer		**Date Signed**
Printed name:	Candace Gilmore	
Deputy Dir., Employment Program Services, North		**Date Signed**
Printed name:	Gary Leete	
Deputy Dir., Employment Program Services, South		**Date Signed**
Printed name:	Luciana Profaca	

Deputy Director, Specialized Services		**Date Signed**
Printed name:	Anthony Candela	
Deputy Director, Administration		**Date Signed**
Printed name:	Juney Lee	
Chief Deputy Director		**Date Signed**
Printed name:	Gary Kuwabara	
Acting Director Department Director		**Date Signed**
Printed name:	Gary Kuwabara	
Agency Information Officer		**Date Signed**
Printed name:	Carlos Ramos	
Agency Secretary		**Date Signed**
Printed name:	S. Kimberly Belshé	

2.0 IT Project Summary Package

2.1 Executive Summary

1.	**Submittal Date**	**July 17, 2006**

		FSR	SPR	PSP Only	Other:
2.	**Type of Document**	**X**			
	Project Number				

		Estimated Project Dates	
Project Title	**Electronic Records System**	**Start**	**End**
Project Acronym	**ERS**	**7/2/07**	**8/16/10**

Submitting Department	**Department of Rehabilitation**
Reporting Agency	**Health and Human Services**

Project #	
Doc. Type	FSR

Project Objectives		**Major Milestones**	**Est. Complete Date**

With implementation of FCS, DOR has defined the following measurable business objectives. ERS will:

- Be accessible to users with disabilities
- Increase the direct time for counseling, to include increased timely processing of cases, better IPE development, and resource development
- Increase the use of presumptive eligibility
- Decrease the time from application to eligibility determination
- Decrease the time from eligibility determination to IPE development
- Increase the number of IPE's written per month
- Decrease unsuccessful employment outcomes
- Increase successful employment outcomes
- Increase consumer statewide average hourly wage
- Increase compliance with RSA reporting requirements
- Increase DOR staff employment satisfaction
- Lower total cost of ownership
- The selected solution will be based on industry standards

See Section 3.3 for more information about each of these objectives, including appropriate metrics.

Receive FSR Approval	7/2/07
Phase 1: RFP Development and Vendor Selection	6/30/08
Phase 2: Special Project Report	8/1/08
Phase 3: System Development	1/20/10
Phase 4 System Deployment and Training	8/16/10
Phase 5: Post Implementation Evaluation Report	8/01/11
Key Deliverables	
Key Deliverables are completed during each ERS Phase above:	
Phase 1: Solution Vendor RFP and Project Oversight/IV&V/Contractor Support RFP's, Solution Vendor Contract and Other Support Contracts	
Phase 2: Prepare and Submit Special Project Report to Department of Finance	1/11/10
Phase 3: Project Management Plans, Fit/Gap Analysis, System Architecture, System Design, Data Conversion Plans and Programs, Test Plans and Results, Development and Production Environment Installation, Training Plan and Product and Technical Training	
Phase 4: Pilot Results, End User Training, Production Software and System Acceptance	
Phase 5: Prepare and Submit Post Implementation Evaluation Report to Department of Finance	
ERS Acceptance	8/16/10

Project #	
Doc. Type	FSR

Proposed Solution
The solution proposed for the DOR Electronic Records System (ERS) is a Commercial-Off-The-Shelf (COTS) system with configuration and minor customization. Research has identified vendor products that can provide core case management functionality that would then be augmented through additional functionality as well as customized forms and reports specific to DOR's business requirements. DOR expects the vendors of these case management products to partner with a system integrator to provide a complete solution. The combination of the COTS vendor and system integrator – the "solution vendor" – will provide a best value solution to the State by meeting the business and technical requirements specified in the FSR. The proposed solution provides DOR with all the benefits of a COTS system, including best practices gleaned from the solution vendor customer base that are included in the functionality of the product, favorable support and maintenance agreements, and a lower total cost of ownership. Numerous vendors in the market can provide the required functionality, greatly increasing the chances of implementing a proven, cost-effective application for DOR. Research identified several vendors that offered integrated solutions tying multiple functions together to create workflow efficiencies.

2.2 Project Contacts

Project #	
Doc. Type	FSR

Executive Contacts								
	First Name	**Last Name**	**Area Code**	**Phone #**	**Ext.**	**Area Code**	**Fax #**	**E-mail**
Agency Secretary	S. Kimberly	Belshé	916	654-3345		916	653-3343	kbelshe@chhs.ca.gov
Department Director	Gary	Kuwabara	916	263-8997		916	263-7474	gkuwabara@dor.ca.gov
Budget Officer	Candace	Gilmore	916	263-8822		916	263-7474	cgilmore@dor.ca.gov
Chief Info. Officer	Gigi	Smith	916	263-8854		916	263-7482	gssmith@dor.ca.gov
Project Sponsor	Gary	Kuwabara	916	263-8997		916	263-7474	gkuwabara@dor.ca.gov

Direct Contacts								
	First Name	**Last Name**	**Area Code**	**Phone #**	**Ext.**	**Area Code**	**Fax #**	**E-mail**
Doc. Prepared by	Gartner	Consulting	916	503-1331		866	630-9110	geoffrey.greig@gartner.com
Primary Contact	Gigi	Smith	916	263-8854		916	263-7482	gssmith@dor.ca.gov
Project Coordinator	Debra	Meyer	916	263-8968		916	263-7482	dkmeyer@dor.ca.gov

2.3 Project Relevance to State and/or Department/Agency Plans

Project #	
Doc. Type	FSR

1.	**What is the date of your current Operational Recovery Plan (ORP)?**	**Date**	July 2005
2.	**What is the date of your current Agency Information Management Strategy (AIMS)?**	**Date**	June 2004
3.	**For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.**	**Doc.**	Strategic Plan
		Page #	8

		Yes	**No**
4.	**Is the project reportable to control agencies?**	**X**	
	If YES, CHECK all that apply:		
X	**a) The project involves a budget action.**		
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
	c) The project involves the acquisition of microcomputer commodities and the agency does not have an approved Workgroup Computing Policy.		
X	**d) The estimated total development and acquisition cost exceeds the departmental cost threshold.**		
	e) The project meets a condition previously imposed by Finance.		

2.4 Budget Information Update

Project #	
Doc. Type	FSR

	No	**Yes**
Budget Augmentation Required?		X

If YES, indicate fiscal year(s) and associated amount:

	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12
Federal Fund		$465,640	$4,503,320	$4,915,808		

PROJECT COSTS

		FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	TOTAL
1.	**Fiscal Year**							
2.	**One-Time Cost**		$863,862	$5,656,320	$6,068,967			$12,589,149
3.	**Continuing Costs**					$1,638,132	$1,638,132	$3,276,265
4.	**TOTAL PROJECT BUDGET**		$863,640	$5,656,320	$6,068,808	$1,638,132	$1,638,132	$15,865,414

SOURCES OF FUNDING

5.	**General Fund**							
6a.	**Redirection (Staff)**		$398,000	$1,153,000	$1,153,000	$931,177	$931,177	$4,566,354
6b.	**Redirection (Existing system)**					$2,130,000	$2,130,000	$4,260,000
7.	**Reimbursements**							
8.	**Federal Funds**		$465,640	$4,503,320	$4,915,808			$9,884,768
9.	**Special Funds**							
10.	**Grant Funds**							
11.	**Other Funds**							
12.	**PROJECT BUDGET**		$863,640	$5,656,320	$6,068,808	$3,061,177	$3,061,177	$18,711,122

PROJ. FINANCIAL BENEFITS

13.	**Cost Savings/Avoidances**					$1,423,000	$1,423,000	$2,846,000
14.	**Revenue Increase**							

2.5 Vendor Project Budget

Project #	
Doc. Type	FSR

Vendor Cost for FSR Development (if applicable)	$249,072

Vendor Name	Gartner Consulting

VENDOR PROJECT BUDGET

1.	Fiscal Year	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	TOTAL
2.	Primary Vendor Budget			$2,921,000	$3,592,600			$6,513,600
3.	Project Management		$39,800	$407,400	$474,560			$921,760
3.	Independent Oversight Budget		$19,900	$203,700	$237,280			$460,880
4.	IV&V Budget		$11,940	$122,220	$142,368			$276,528
5.	Other Contract Services Budget		$336,250	$69,000	$69,000			$474,250
6.	TOTAL VENDOR BUDGET		$407,890	$3,723,320	$4,515,808			$8,647,018

2.6 Risk Assessment

Project #	
Doc. Type	FSR

	Yes	No
Has a Risk Management Plan been developed for this project?	X	

General Comment(s)

The ERS Project Team has developed a Risk Management Plan that is detailed in Section VII of this Feasibility Study Report. The Risk Management Plan is based on State Information Management Manual (SIMM) guidelines. Key components include:

- Identification of roles and responsibilities for the various parties involved in Risk Management, including the Executive Steering Committee, Project Management Team, and Independent Project Oversight and IV&V vendors.
- A Risk Management Plan that will be used on an ongoing basis to identify risks, quantify the potential impact of each identified risk, present mitigation plans and enact appropriate risk responses. Mitigation measures and contingency plans will be developed and implemented as high-priority risks are identified and monitored.
- Identification of a risk management process. The Solution Vendor who will be required to develop a Risk Management Plan within 30 days of contract execution will supplement this process. It is expected that the State will work with the Solution Vendor to develop a single risk management process that will cover all areas of project risk.
- A Risk Management Worksheet detailing risks identified by DOR to date. The Risk Management Worksheet was completed to provide a risk assessment based on the identification, analysis, quantification, and prioritization of key project risks.

3.0 Business Case

The purpose of this section is to provide a clear understanding of the business environment of the California Department of Rehabilitation (DOR). In addition, it describes the conditions and problems with the current Field Computer System (FCS) that have created a need for action, as well as objectives and requirements for the proposed solution. This section:

- Provides a high-level overview of the DOR organization;
- Describes the responsibilities and functions of DOR;
- Describes the conditions with the current Field Computer System that have created the need for action;
- Articulates the business problems and opportunities stemming from the current conditions; and
- Presents the objectives and benefits of the proposed solution, which will rectify current case management problems.

This business case is comprised of the following sub-sections:

Table 1. Business Case Sub-Sections

3.1 Business Program Background
3.1.1 Program Description
3.1.2 Business Process Description
3.1.3 Impact of the Proposal
3.1.4 Consumers and Users
3.1.5 Program Experiencing the Problem
3.1.6 Conditions Creating the Problem
3.2 Business Problem Or Opportunity
3.2.1 Business Problems
3.2.2 Business Opportunities
3.3 Measurable Business Objectives
3.3.1 General Objectives
3.4 Business Functional Requirements
3.4.1 Conceptual Model
3.4.2 Business Functional Requirements
3.4.3 Infrastructure Requirements

3.1 Business Program Background

DOR is seeking authorization to replace the outdated, inaccessible, and cumbersome case service FCS that currently supports the Employment Preparation Services (EPS) Division and the Specialized Services Division (SSD). The goal of procuring a new Electronic Records System (ERS) is to improve the accessibility, effectiveness and efficiency of the Vocational Rehabilitation (VR) Services Program and provide field, program and executive management with more accurate and timely information for monitoring, oversight, planning and reporting purposes.

Individualized vocational rehabilitation is the major service provided by EPS and SSD. The EPS Division operates in 13 district offices and 85 associated branch offices throughout the State. SSD is made up of Blind Field Services (BFS) staff, serving blind and visually impaired consumers, and the Deaf and Hard of Hearing Services Unit that provides support and guidance to field staff regarding consumers who are Deaf and Hard of Hearing. EPS and SSD staff work in partnership with consumers and other stakeholders to provide services and advocacy resulting in employment, independent living and equality for individuals with disabilities.

The VR Program is funded with a combination of State and Federal funds. Federal funding is authorized under the Workforce Investment Act (WIA), which includes the Federal Rehabilitation Act of 1973, Title I, Section 110 and is issued through grants to States based on a formula established by Congress. Federal appropriations for VR programs have increased steadily over the years. California received $247,893,144 in Federal appropriations for Federal Fiscal Year (FFY) 2004 and $248,655,000 for FFY 2005. The Federal allocation is designated to finance a maximum of 78.7% of the cost of qualifying activities within the VR Program. The remaining percentage is provided by State matching funds.

Federal oversight for the VR Program is provided under the United States Department of Education, Rehabilitation Services Administration (RSA). RSA mandates reporting of key data for accountability purposes. The FCS is DOR's only tool for gathering and reporting information required by RSA. In reporting case service data (i.e., RSA-911 report), DOR must collect information and report on more than 96 different items for all cases closed during a Federal fiscal year.

The following statistics provide an overview of DOR's program size and scope.

- During the State Fiscal Year (SFY) 2003/2004, DOR received and processed 41,983 new applicants requesting services, creating both an electronic and hard copy case record for each applicant.
- A total of 27,783 new Individualized Plans for Employment (IPE's) were written in the SFY 2003/2004.
- As of June 30, 2004, a total of $149,407,000 in funds for case services had been encumbered for the SFY.

- DOR closed 40,562 individual case records in SFY 2003/2004. The total number of open case records as of June 30, 2004 was 75,158.

3.1.1 Program Description

The principal focus of this feasibility study report and the recommendations offered herein pertain to the case service FCS and all related systems, with the exception of the Personnel Management System (PMS) and Financial Management System (FMS), that currently supports EPS and SSD. A brief description of the division is provided below, with a Department-wide organization chart on the following page to help understand how these divisions fit within the organizational structure of DOR.

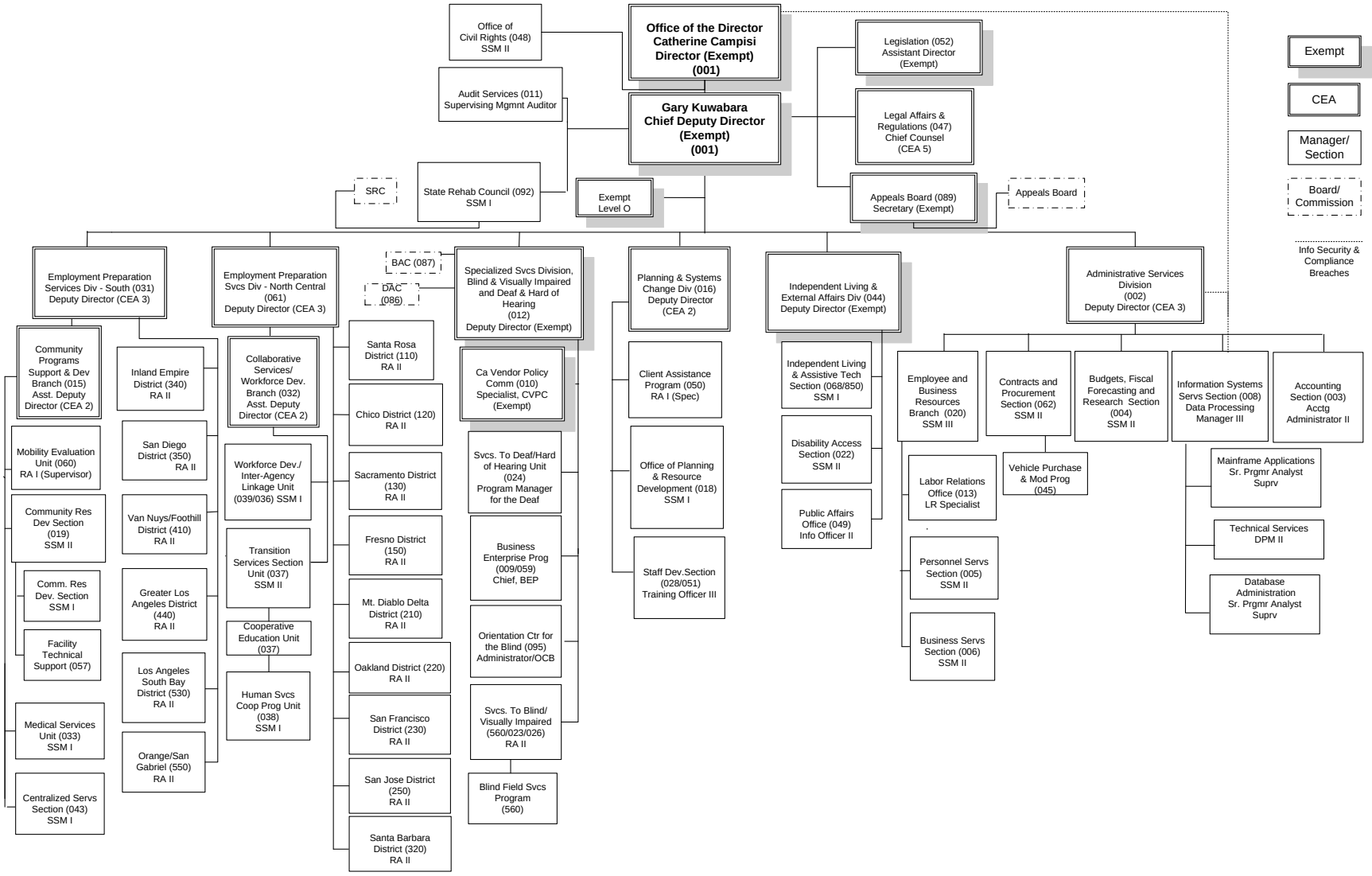
- **EPS** is comprised of Rehabilitation Counselors, Rehabilitation Supervisors, District Administrators and office support staff throughout the State. The purpose of EPS is to operate and support the VR programs. EPS develops, purchases, provides and advocates for VR programs and services, with a priority on service provisions to persons with the most significant disabilities.
- **SSD** is comprised of:

  Blind Field Services Blind Field Services is a statewide network of Rehabilitation Counselors for the Blind and Counselor Teachers of the Blind. The goal of Blind Field Services is to increase employment outcomes for consumers in California who are blind and visually impaired by utilizing a team approach and by maintaining a core group of counselors and supervisors who understand the barriers DOR consumers face in achieving meaningful employment and independent living.

  Services for the Deaf and Hard of Hearing

  This Section provides additional expertise and support to consumers and rehabilitation counselors in the field. Section staff develops, implements and coordinates specialized rehabilitation programs designed to serve the unique needs of consumers with a wide range of hearing impairments. The staff participate in district services evaluations through review of consumer cases; assist individual counselors, as requested, in effective case management; and train the staff of the Department in improving the delivery of services to this population.

Figure 1. DOR Organizational Chart



3.1.2 Business Process Description

The DOR VR program services are provided by Senior Vocational Rehabilitation Counselors (RC's) to individual consumers with the most significant disabilities. Consumers are referred to the Department from a variety of sources including physicians, social service agencies, schools, and self-referral. The primary program goal for each consumer is attainment of a suitable, competitive employment outcome. Services are provided under an IPE, a roadmap that outlines the steps required to achieve the employment outcome. RC's provide, authorize and coordinate a wide variety of consumer services including, but not limited to:

- Counseling and guidance
- Medical and psychological evaluation;
- Vocational evaluation;
- Academic and vocational training;
- Assistive technology (AT);
- Physical and mental restoration services;
- Interpreting and reader services;
- Supported employment services; and
- Job search and placement assistance.

In addition to these services, RC's authorize and arrange for the purchase of goods or services required for completion of the employment outcome; such as equipment, books, supplies, tools, transportation, work clothing, etc.

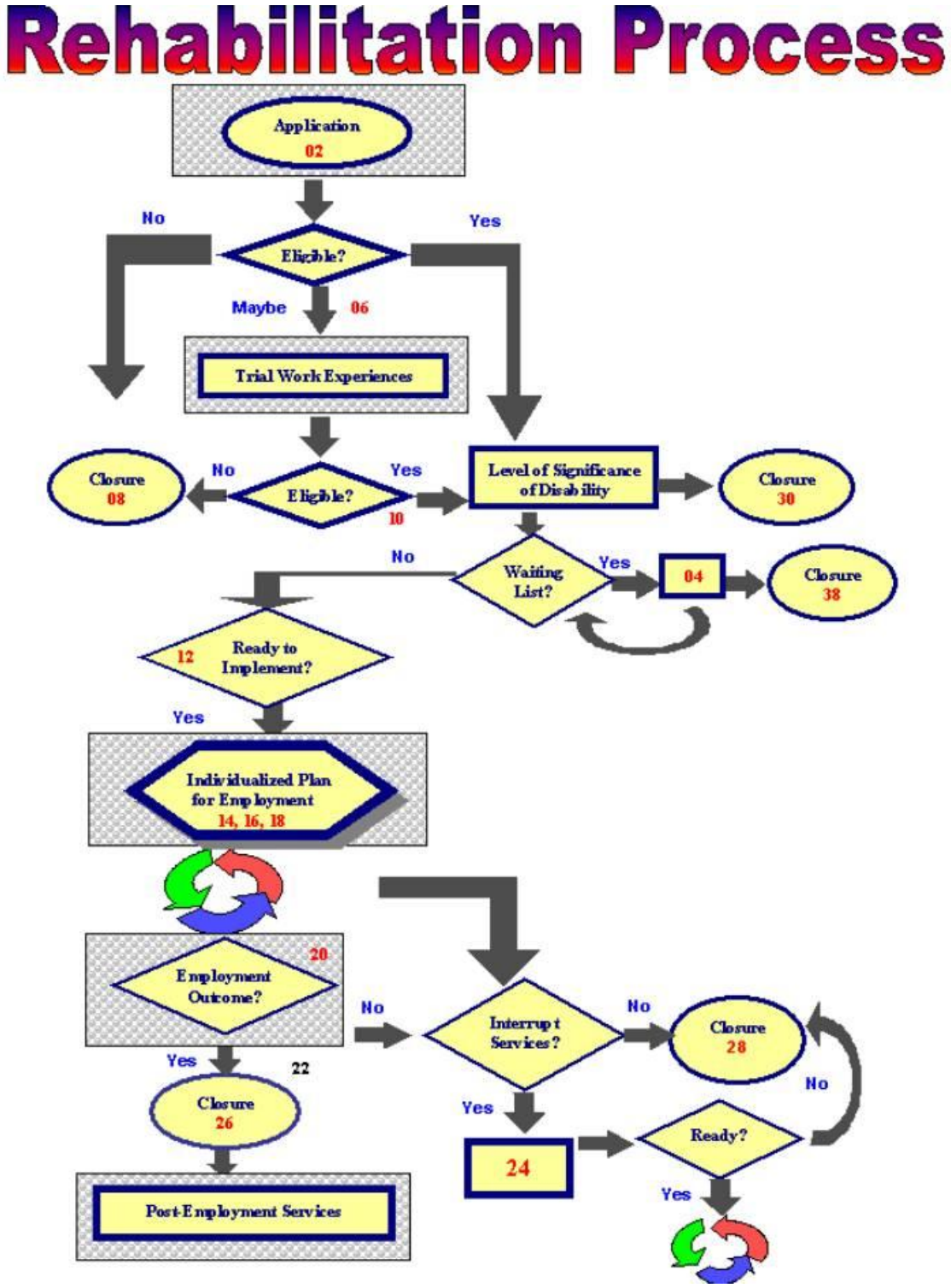
Each consumer's case must be fully documented by the assigned RC. Case documentation is gathered in both electronic and hard copy case files. Documentation of the following items is required by California Code of Regulations (CCR) §7122 to meet Federal requirements:

- Referrals made to and from the Department;
- Application for services;
- Any appointment of an authorized representative, duly appointed guardian or conservator;
- Initial interview/case initiation documentation;
- Completion of personal/demographic information;
- Eligibility determination;
- Trial Work Experience (TWE) and/or Extended Evaluation (EE), as applicable;
- Notice of eligibility/ineligibility;
- Level of Significance of Disability (LSOD) assessment;

- Medical documentation of impairment;
- Education/work history;
- Consumer consent for medical and non-medical services/records;
- Narrative case notes, observations and justifications;
- Appeals, mediations, and fair hearing reviews and their outcomes;
- IPE and any amendments;
- Annual review of IPE;
- Service entry detail and expenditure accounting;
- Evidence of use of comparable benefits and services;
- Medical and psychological evaluations;
- General correspondence;
- Evidence of a consumer's request to amend the record of services and any outcome of such request;
- Evidence of a consumer's exercising "Informed Choice;"
- Receipts for purchases;
- Issuance and disposition of equipment;
- Imprest cash disbursements;
- Progress reports;
- Federal reporting data;
- The reason for case closure information and other closure information; and
- Post employment service.

The figure below depicts the rehabilitation process flow from start to finish.

Figure 2. Rehabilitation Process Flow



Descriptions of status codes contained in this figure are found in the following table.

Table 2. Rehabilitation Process Status Code

Status Code	Description
02 – Applicant	The applicant with a disability has requested services, submitted the minimum information necessary to initiate an assessment to determine eligibility and priority for services (e.g., name, means of contact and reason for application) and is available to complete the assessment process.
04 – Waiting List	During an Order of Selection, the eligible consumer does not meet the current priority category for services and is placed on a Waiting List.
06 – Trial Work Experiences or Extended Evaluation	The consumer may be incapable of benefiting from services in terms of an employment outcome due to the severity of the disability. Trial work experiences or, in limited circumstances, extended evaluation may be provided for the purpose of determining eligibility or ineligibility.
08 – Closed After Application Submitted	The consumer's record of services is closed before eligibility has been determined or the consumer is determined ineligible.
10 – Eligible	The consumer meets all eligibility determination requirements. S/he has a physical or mental impairment that constitutes or results in a substantial impediment to employment and requires vocational rehabilitation services. Supplemental Security Income (SSI) recipients and Social Security Disability Insurance (SSDI) beneficiaries are presumed to meet eligibility criteria, provided they intend to achieve an appropriate employment outcome. The consumer is presumed able to benefit from services, unless the presumption is overcome by clear and convincing evidence through the use of trial work experiences or extended evaluation.
12 – IPE Completed: No Services Provided	This status is automatically entered into FCS when the case is moved to IPE status (codes 14, 16, or 18)
14 – IPE: Counseling and Guidance	The consumer primarily requires counseling, guidance, and placement services to prepare for an employment outcome and a plan is written.
16 – IPE: Physical/Mental Restoration	The consumer primarily requires the provision or arrangement of physical or mental restoration services to prepare for an employment outcome and a plan is written.
18 – IPE: Training	The consumer primarily requires provision of academic, vocational, personal/social adjustment or other training services to prepare for an employment outcome and a plan is written.
20 – Ready for Employment	Planned services are completed and the consumer is ready for employment.
22 – Employed	The consumer has begun employment.
24 – Services Interrupted	The consumer is unable to participate in the IPE due to circumstances beyond his or her control. Planned services are interrupted for a period of time and there is a clear plan to resume services within a specified period of time.

Status Code	Description
26 – Closed-Employment Outcome Achieved	The consumer has entered into and retained full-time or part-time competitive, supported, or other appropriate employment. Through an IPE, DOR services have been provided which contributed to the achievement of an employment outcome in the most integrated setting possible, and consistent with the client's unique strengths, resources, priorities, concerns, abilities, capabilities, interests and informed choice. Pay is at least the minimum, but not less than customary, wage/level of benefits paid to persons without disabilities who are performing similar work for the same employer. The employment outcome has been maintained for at least 90 days, the client is performing well, and post-employment needs are reassessed.
28 – Closed-Employment Outcome Not Achieved (IPE Services)	The consumer has been provided services through an IPE, but is not expected to achieve an employment outcome and/or can no longer benefit from services.
30 – Closed-Employment Outcome Not Achieved (No Services)	The consumer has been determined eligible but does not use planned services.
38 – Closed from Waiting List	The eligible consumer is on a Waiting List during an Order of Selection but will not advance to a service status.

Categories of DOR business processes include:

- Intake and Eligibility Verification
- Case Management
- Payor/Provider Relations and Management
- Finance/Accounting
- Decision Support Services

These processes are described in detail in the following pages:

3.1.2.1 Intake and Eligibility Verification

Application

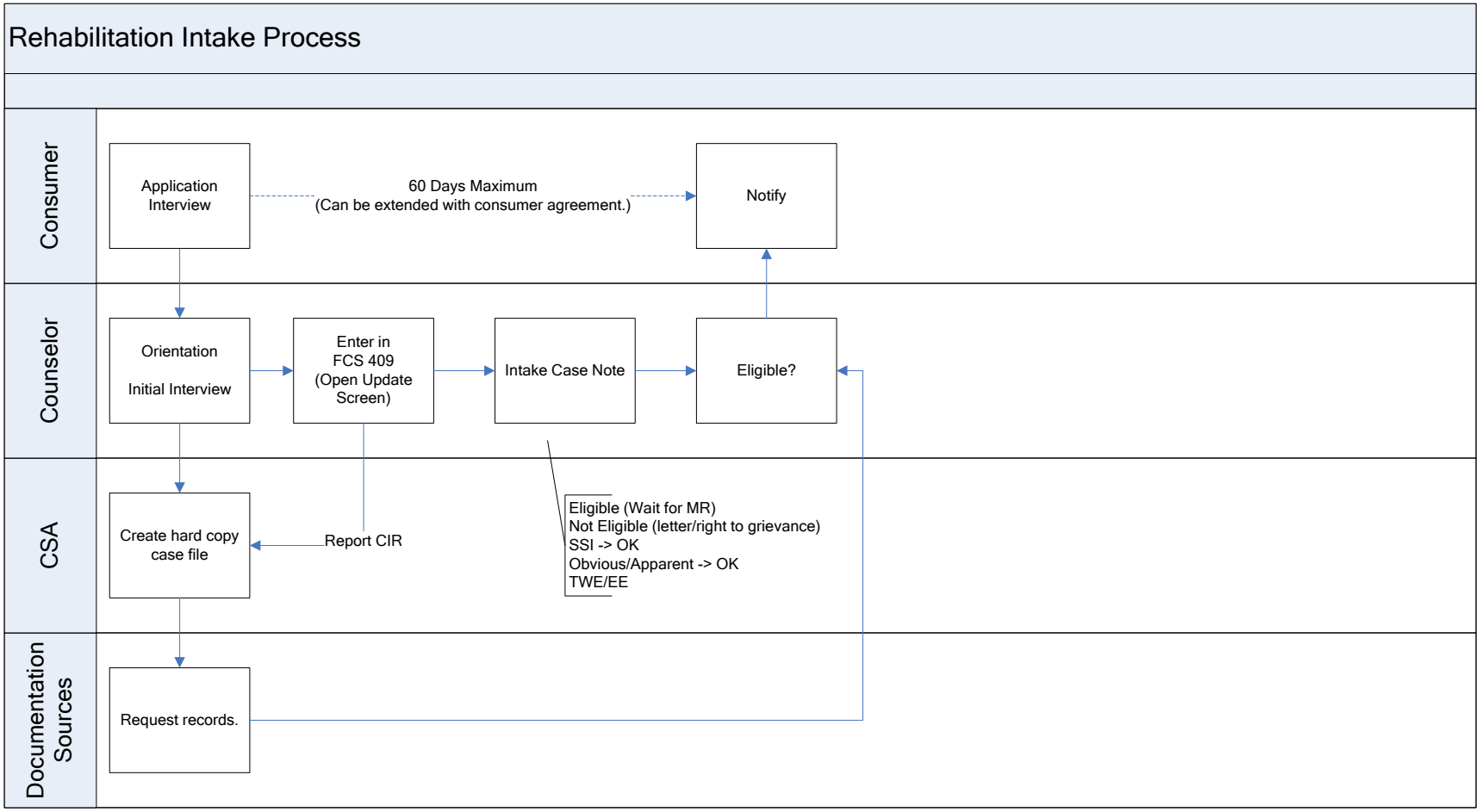
When an individual applies for DOR services, he or she typically completes a DR 222 Vocational Rehabilitation Services Application form, which captures preliminary information about the individual. The individual can apply for DOR services using the following methods:

- In-Person/Telephone/Letter/Email/Fax – The individual requests DOR services by providing specific information to DOR. This information can be provided on the DR 222 Application form or in another reasonable format. The RC enters the information into FCS.
- On-line/e-mail – The individual accesses the DOR website and enters the application information in an electronic DR 222 Application form. E-mail with the individual's information is automatically generated and forwarded to the appropriate staff.

The individual can attend an orientation without submitting an application. Referral information is usually not entered into FCS at orientation to avoid the time-consuming process of opening and closing the case in FCS if the individual decides not to request services. RSA requires a referral tracking procedure. However, DOR has not been able to develop an effective tracking system due to FCS limitations and is currently unable to comply with this requirement.

The following figure illustrates the rehabilitation intake process.

Figure 3. Rehabilitation Intake Process Flow



An appointment is scheduled for the RC to conduct an initial interview with an individual who wishes to apply for DOR services. The RC conducts the interview and attains the necessary information to open the case. The RC collects demographic, social and vocational information, necessary release forms and authorization from the individual to request medical, educational and vocational records. Upon completion of the interview, the RC enters the required information

and an initial interview case note into FCS. The RC relies on the Case Service Assistant (CSA) to create a hard copy case file and process the request for appropriate records from the documentation sources (e.g., medical providers) provided by the applicant.

Eligibility

The RC is required by Federal regulations to determine the individual's eligibility within sixty days (60) of the date the application is received by DOR, unless the individual and RC agree upon an extension. Eligibility is determined using three criteria:

1) Does the person have a physical and/or mental impairment?
2) Does the impairment constitute or result in a substantial impediment to the applicant's employment?
3) Does the person require services from DOR to prepare for, secure, retain or regain employment?

In many cases, the applicant's vocational barriers are apparent; however, the RC must collect additional information, such as medical records to determine eligibility. An SSI/SSDI beneficiary is presumptively eligible for DOR services under both State and Federal regulations. If there is question as to whether any applicant can benefit from VR services due to the severity of disability, the RC is required to use Trial Work Experience (TWE) or, in limited circumstances, Extended Evaluation (EE) in order to determine eligibility. Use of TWE or EE requires the RC to begin the Authorization process (see Authorization subsection in 3.1.2.3, Payor/Provider Relations and Management).

If the applicant is found eligible, he or she is informed of his or her eligibility via a letter. If DOR is operating under Order of Selection, the RC proceeds to determine the level of significance of disability and priority of services. If the applicant is determined to be ineligible, he or she is informed via written documentation of his or her ineligibility and right to appeal the determination.

3.1.2.2 Case Management

Order of Selection

Federal law states that if there are insufficient funds to provide VR services to all eligible applicants, the State must implement an Order Of Selection (OOS) used to select eligible individuals to be provided services. OOS utilizes the Level of Significance of Disability (LSOD) tool. The LSOD is a comprehensive assessment of the impact of an individual's

disability on specific functional capacity areas in order to place the consumer in a priority category for service. DOR has been operating under OOS since 1995.

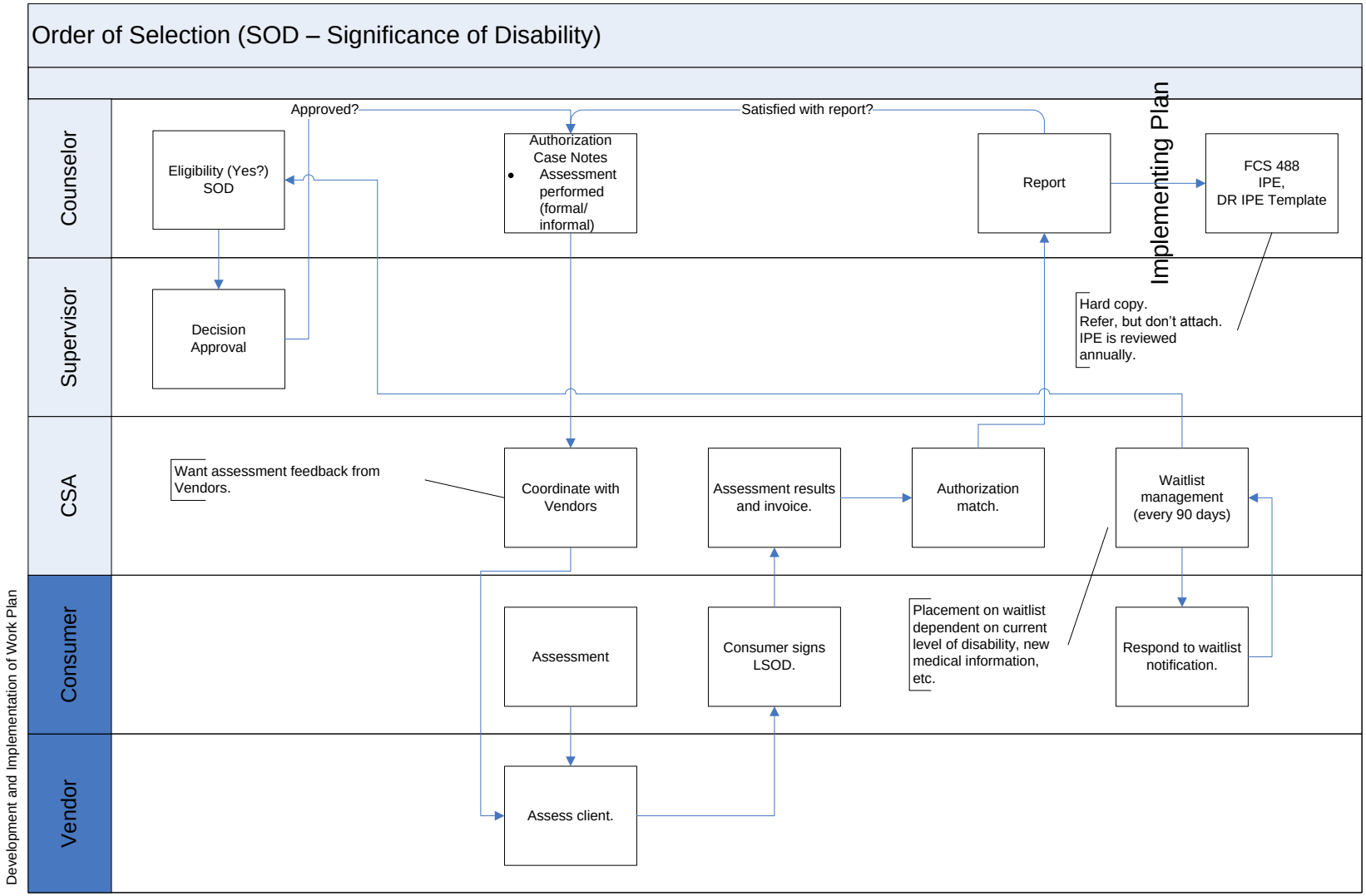
Although regulations state that RC's should use existing data and information regarding the consumer's disability, not all individuals have a well-documented medical and vocational history relevant to their disability. In many instances, the RC must order assessments to determine the level of significance of the disability. Use of assessments requires the RC to begin the Authorization process. The RC completes a screen in FCS that captures the impact of a disability(ies) on the functional capacity areas and automatically determines the consumer's priority for services. The category level and date of application indicates the order in which consumers receive DOR services. As of June 30, 2005, DOR has the following categories.

- Category 1 – Most Significantly Disabled: Services Provided
- Category 2 – Significantly Disabled: Services Provided
- Category 3 – Disabled: Wait List

Consumers are informed via written documentation of their placement in an OOS priority category. DOR sends a notice to those individuals on the wait list every 90 days. If the individual chooses to remain on the wait list, they must indicate their interest by returning the notice. If, after 60 days, the consumer does not respond to a second written notice, or they indicate they are no longer interested in remaining on the wait list, the case can be closed.

The following figure illustrates the OOS process.

Figure 4. Order of Selection Process Flow



Comprehensive Assessment – Pre-Plan Development/Pre-Plan Services

After determination of an individual's placement under OOS, the RC and consumer begin the plan development process. The consumer and RC work together to assess the consumer's abilities and vocational needs. A DR 214, IPE Development form, is completed in Adobe Acrobat® or hard copy describing the actions needed to develop the plan. The DR 214 is not stored in FCS because FCS does not accommodate attachments.

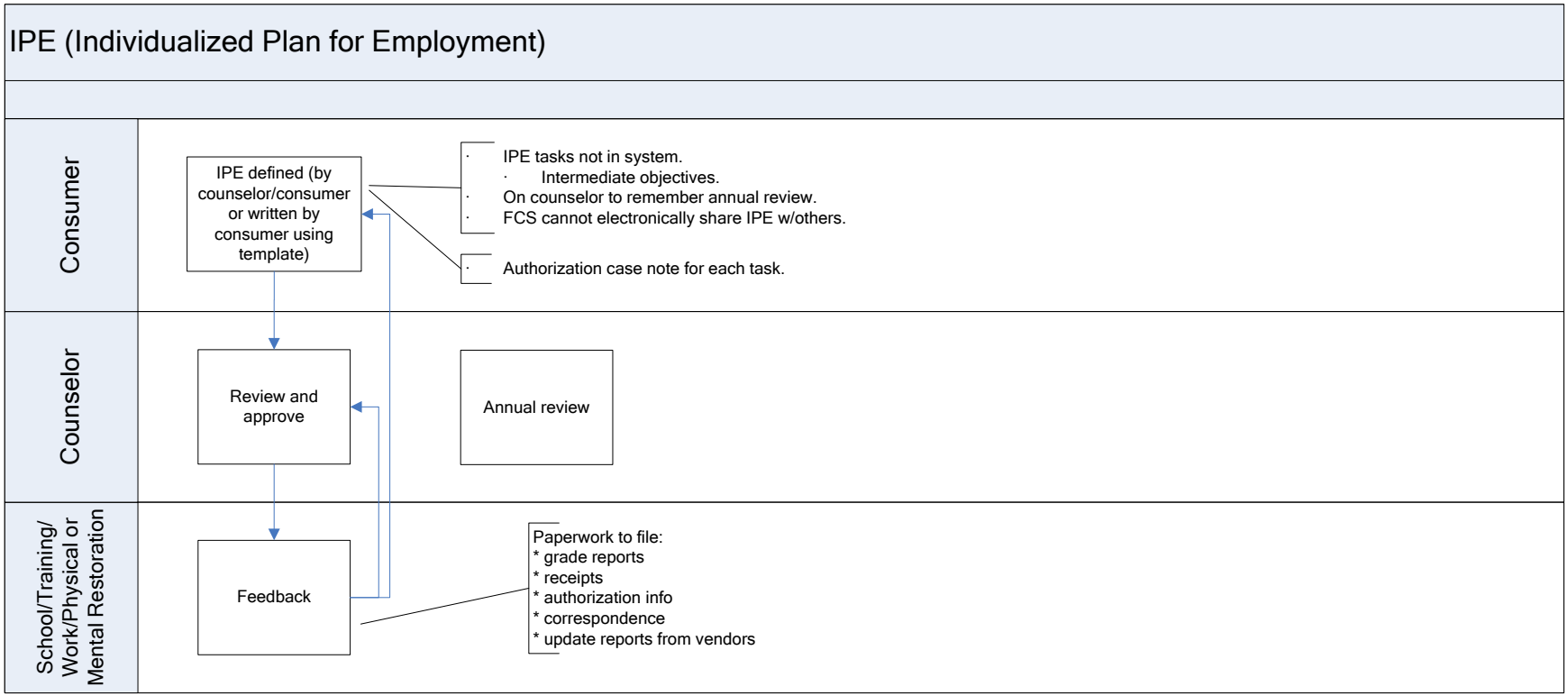
A date for writing the DR215, IPE is mutually determined and the RC enters that date into FCS. Should an assessment for the IPE be required, the RC begins the Authorization process. Feedback received via assessments is used in the development and determination of services to be provided under the IPE.

Individualized Plan for Employment

Once the actions outlined in the DR 214 are complete, the consumer and RC formally develop and the RC approves the DR 215 IPE. The IPE is created and contains the following: the stated employment goal; the specific VR services; service providers needed to achieve the goal; dates these services will be provided; and the funding source for each service. FCS does not readily store the IPE due to the document-related format of the data required. The RC must add an authorization case note into FCS for each service needed for the completion of the IPE. The RC works with the consumer to accomplish the goals set in the IPE. The IPE is formally reviewed on an annual basis and progress is measured as agreed upon. Procurement of goods or services to execute the IPE requires the RC to begin the Authorization process.

The following figure illustrates the IPE process.

Figure 5. Individualized Plan for Employment Process Flow



Employment Management

Once the consumer and RC have accomplished the necessary tasks to prepare the consumer for employment, placement services are provided on an individual basis and include, but are not limited; to vocational exploration, job seeking skills training; job analysis; job modification or restructuring; employer contacts and employer/consumer follow-up and consultation. These activities may occur with the RC, a job club, workshop or Community Rehabilitation Program (CRP). The purpose of these services is not only to find the consumer suitable employment, but also to teach the consumer skills to secure a job themselves should the need arise in the future.

At the time the consumer attains employment, the placement is monitored, and the employer may supply feedback on the consumer's job performance to the RC. The RC continues to monitor all aspects of the case and the individual's employment situation, until such time that the individual has maintained employment for at least 90 days, is satisfied with the employment outcome, and no further services are needed. The case may then be closed successfully.

Case Closure

Cases can be closed in a variety of ways. The consumer's case record may be closed in the following instances:

- An applicant chooses not to complete the application process;
- An applicant is determined ineligible;
- An applicant chooses not to stay on the Wait List; or
- An applicant stops participating in DOR services.

Ideally, the consumer attains an employment outcome and the case is closed successfully. A successful closure is defined by regulation as meeting all the following criteria:

1) The consumer has successfully achieved an employment outcome as stated on the IPE;
2) The consumer is satisfied with the outcome and agrees to closure;
3) The consumer has maintained suitable work for at least 90 days; and
4) The services provided by DOR under the IPE substantively led to the employment outcome.

In all instances the RC must indicate the services received and the outcome, as well as other pertinent information required by RSA at the time of closure.

Post-Employment

After successful closures, consumers may request DOR's assistance with procuring goods or services necessary to maintain employment. Federal law does not limit the period during which post-employment may be provided, but the current FCS impedes DOR's ability to process these transactions after closure. A new case must then be created for the

RC to begin the Authorization process. This has required an additional process of tracking new cases created solely to provide post-employment procurement and to ensure data integrity.

3.1.2.3 Payor/Provider Relations and Management

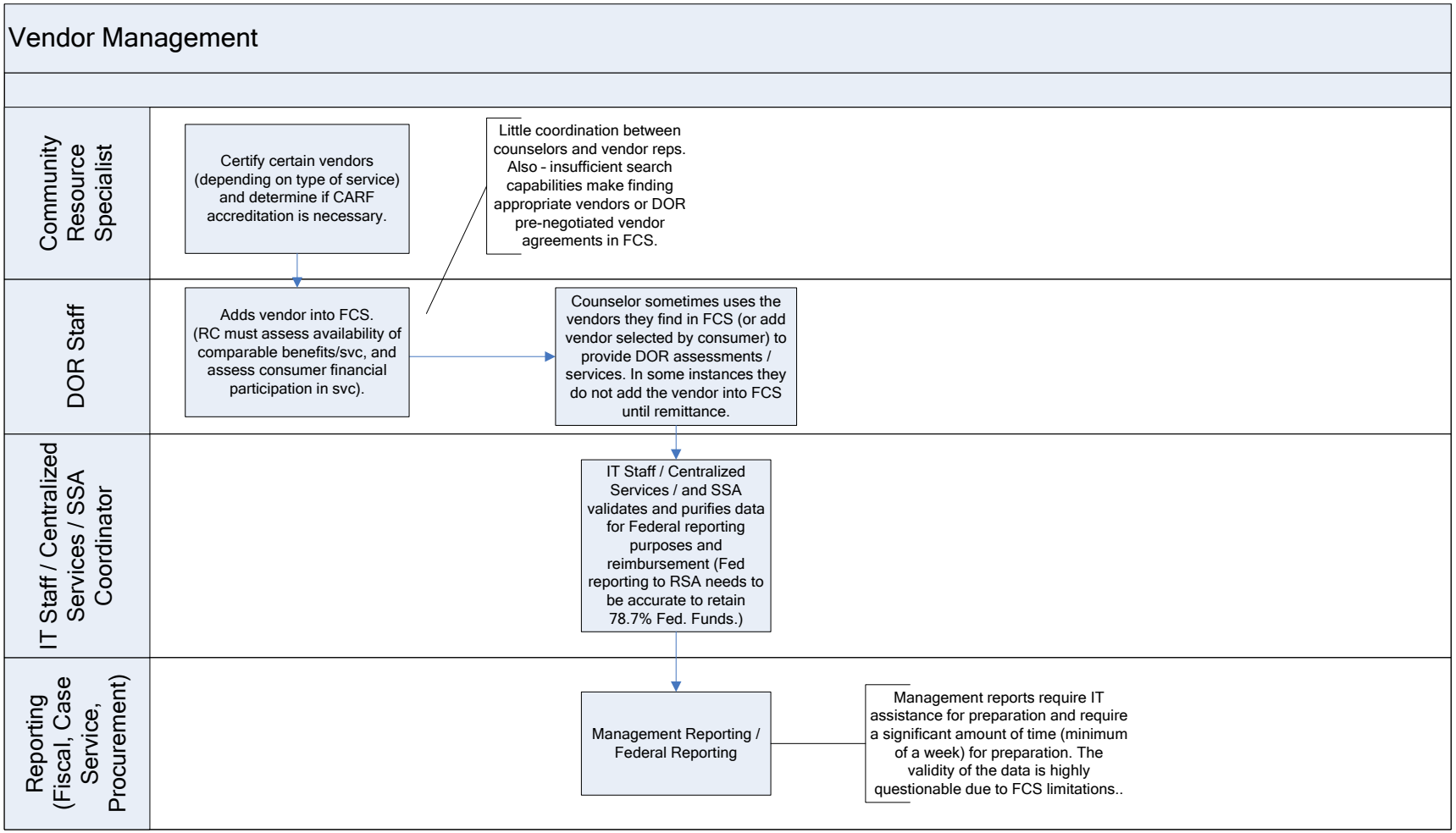
Vendor Management

Vendor Management is performed manually and inhibits sharing and use of data by other staff. Vendor Management is not performed in FCS because of complex vendor relationships and insufficient vendor search capabilities. There are varying vendor agreements depending on the type of vendor. For example, some contract vendors are reimbursed monthly, while other vendors charge DOR a fee for consumer services or goods. Adding to the complexity, different DOR regions can have different contractual or fee agreements with the same vendor because of the costs in that specific region. Also, FCS must account for large vendors, such as Sears, that have multiple locations.

FCS's vendor search functionality does not meet DOR's needs. Search results are inconsistent, causing duplicate data entry and inconsistent naming of vendors. This leads to the inability to truly manage vendors and their performance.

The following figure illustrates the Vendor Management process.

Figure 6. Vendor Management Process Flow



In an effort to improve Vendor Management, DOR is creating an MS Access solution to capture vendor information for vendors that must be certified or accredited. This database is not comprehensive, nor can it be used by field staff as a vendor resource.

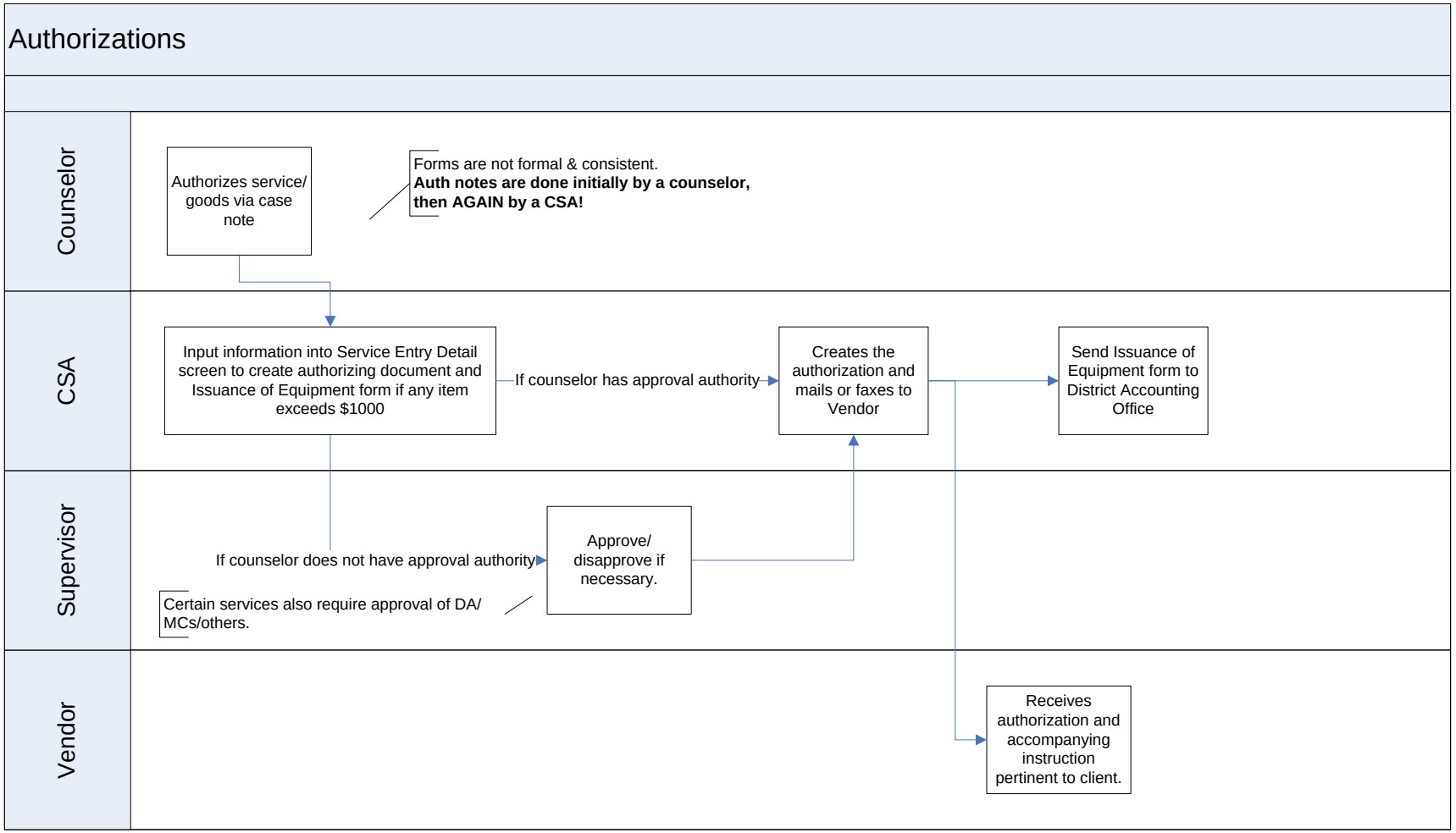
Authorization

RC's are procurement agents for the State. They are knowledgeable of resources, using informed choice to guide the consumer's decision regarding goods, services and vendors, balance procurement to meet the consumer's need against State/DOR specific rules. When requesting the procurement of a goods or service on behalf of a consumer, the RC completes an Authorization Case Note, which specifies the goods/service to be procured and the amount authorized. At this point, the authorization and procurement is turned over to the CSA.

The CSA assists the RC in determining the proper payment process mechanisms, allowable medical fees, providers, and sometimes the vendor. The CSA is required to duplicate the efforts of the RC and re-type the authorization into the client encumbering system. FCS does not have the capability to automatically populate the data required for authorizations.

The following figure illustrates the Authorization process.

Figure 7. Authorizations Process Flow



A supervisor or district administrator must approve an authorization depending on the experience of the counselor and/or the type of goods/service being provided.

Communications Management

RC's and CSA's must compose correspondence to their vendors in a MS Word® document and maintain the hard copy in case folders. Because staff cannot store MS Word® documents in FCS, it is impossible for supervisors or managers to verify a consumer's progression without the hard copy case folder.

Contracting

As stated previously in the Vendor Management subsection, DOR has several different types of negotiated agreements with vendors. FCS does not provide the ability to capture different contract types and track vendors against the performance of their contractual agreements.

3.1.2.4 Finance/Accounting

Case Finance/Accounting

FCS does not provide the ability to automatically associate remittances generated from the application to a specific consumer, and as a result, there is no easy means to track the actual amount expended for a specific consumer.

Remittance

The remittance process can be divided into three specific categories:

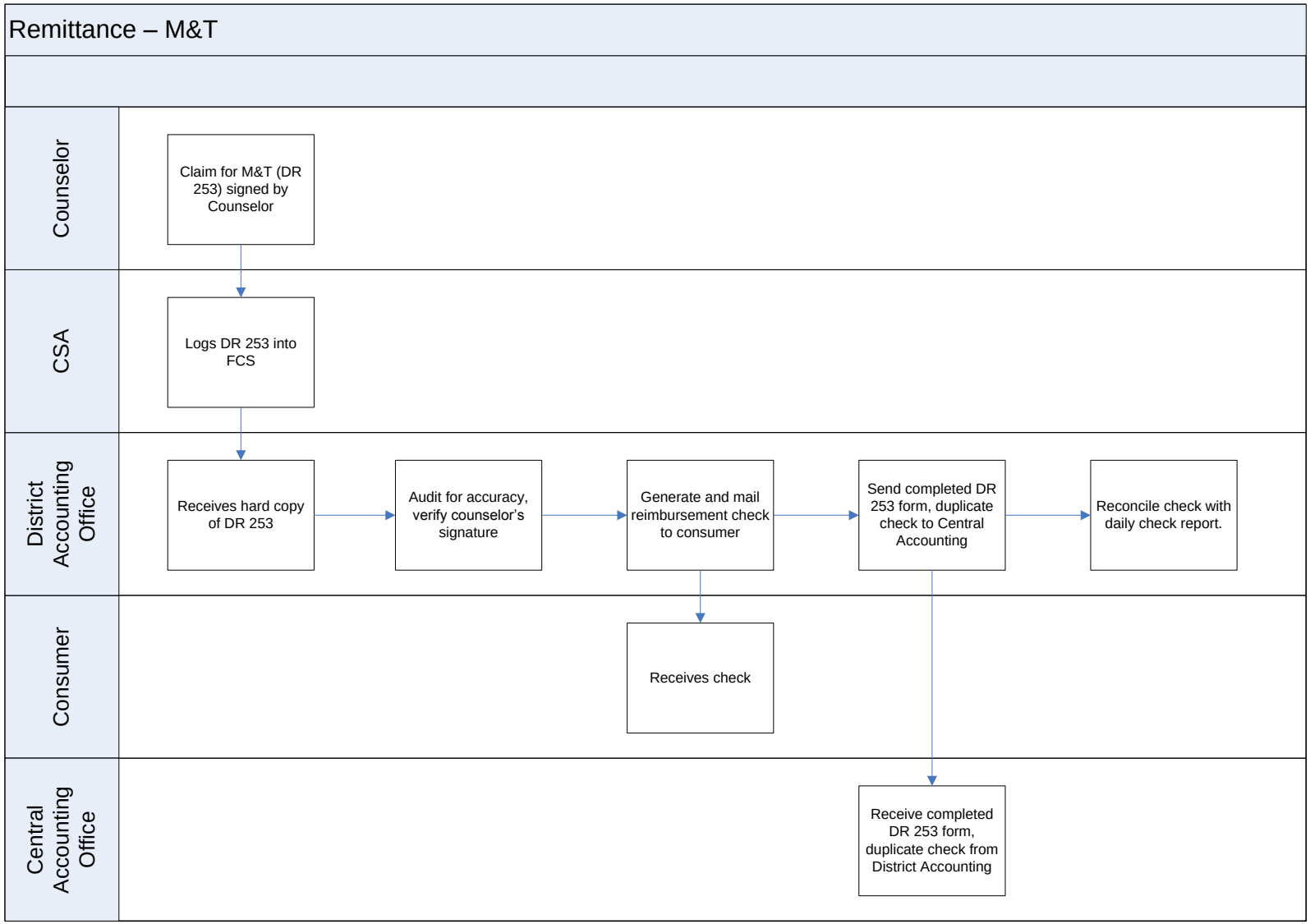
- Maintenance and Transportation
- CAL-Card
- Goods and Services

Remittance – Maintenance and Transportation (M&T)

M&T claims are initially authorized by a counselor, and then submitted for payment to the District Accounting Office (DAO) by a CSA. The District Accounting Office sends the consumer a reimbursement check for goods and/or services purchased. Finally, the DAO reconciles each M&T check with the daily check report.

The following figure illustrates the Remittance – Maintenance and Transportation process.

Figure 8. Remittance Process Flow – Maintenance and Transportation

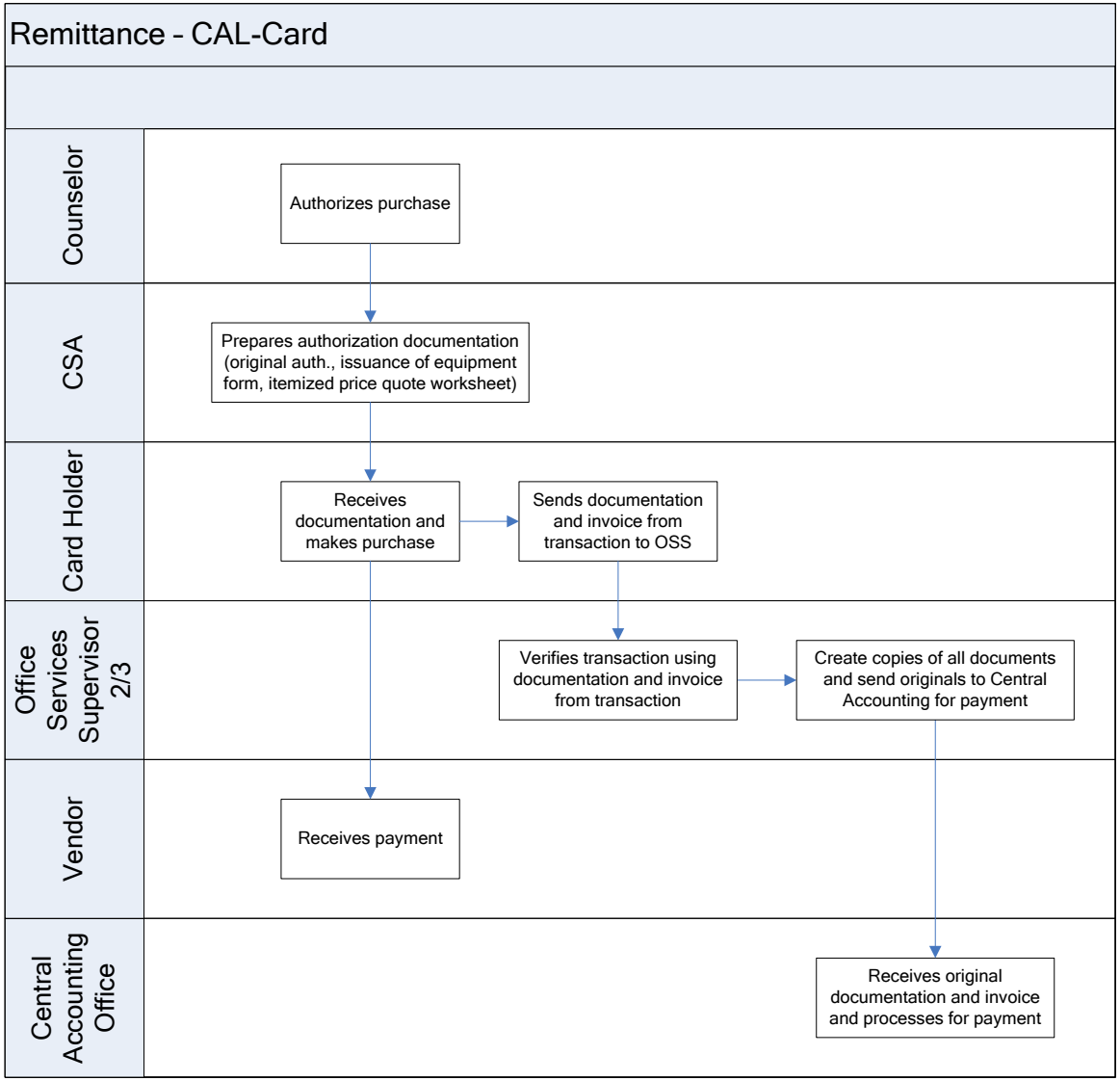


Remittance – CAL-Card

The CAL-Card program allows State agencies to streamline and expedite the procurement of various vendor products and services. After obtaining documentation authorizing a purchase, the designated district office cardholder makes the purchase using the CAL-Card and sends all related documentation to an Office Services Supervisor (OSS) for processing. The OSS creates copies of this documentation then sends the originals to the Central Accounting Office for payment.

The following figure illustrates the Remittance – CAL-Card process.

Figure 9. Remittance Process Flow – CAL-Card

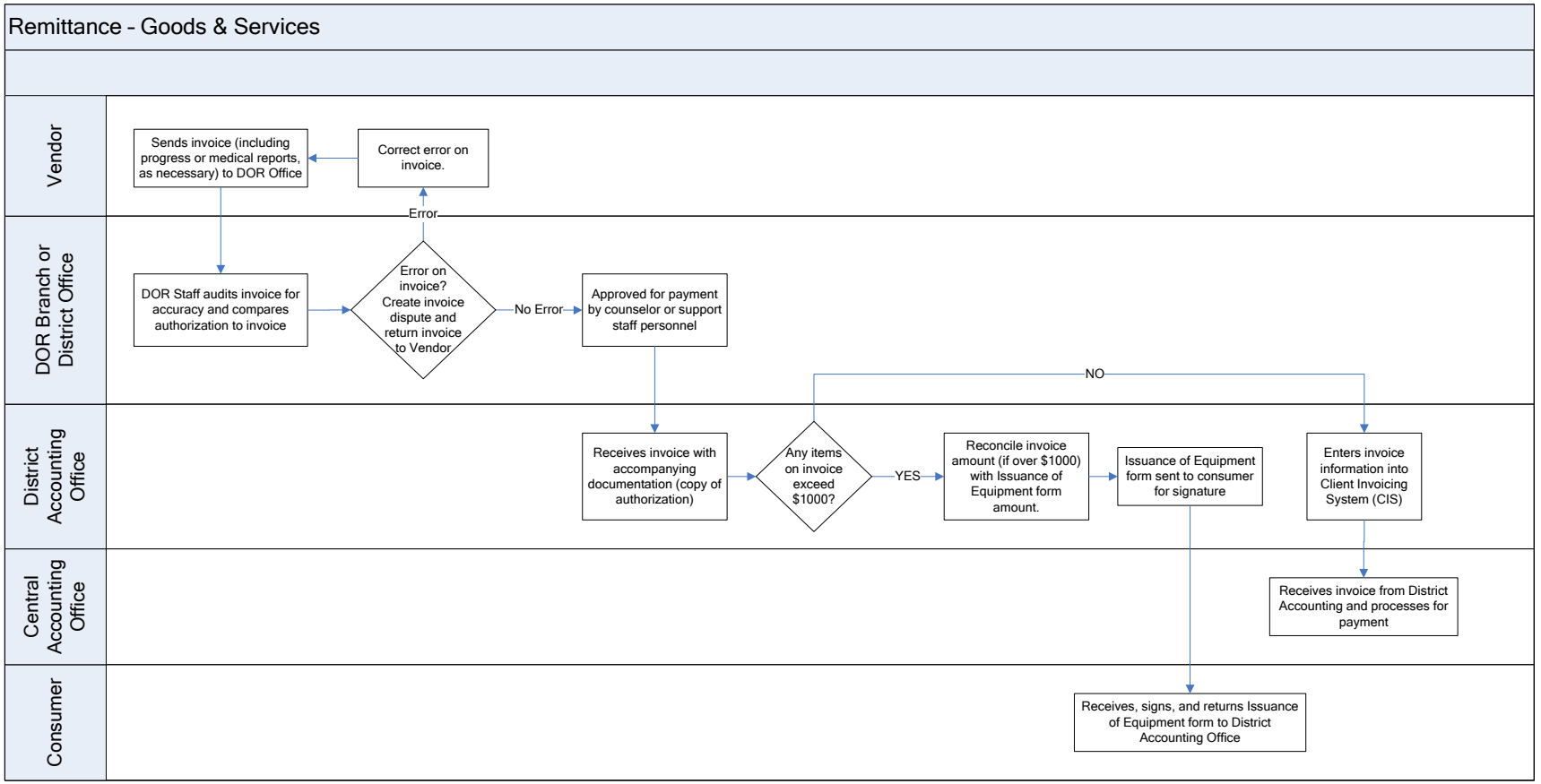


Remittance – Goods & Services

Remittance for goods and services includes medical services, training services, employment services (e.g., resume writing, job development, employment preparation) and various goods acquired by the consumer. Once goods and/or services have been provided to the consumer, the vendor sends the related invoice (and any supporting documentation) to a DOR branch or district office for payment. After ensuring the accuracy between the invoice and original authorization, counselor or support staff sends the invoice and other documentation to the District Accounting Office. If the invoice is for a purchase of equipment exceeding $1,000, an Issuance of Equipment form must be signed by the consumer to acknowledge receipt of equipment (such equipment is to be returned to DOR upon termination of services). Finally, invoice information is entered into the Client Invoicing System (CIS) and the invoice is sent to the Central Accounting Office for payment.

The following figure illustrates the Remittance – Goods and Services process.

Figure 10. Remittance Process Flow – Goods & Services



3.1.2.5 Decision Support Services

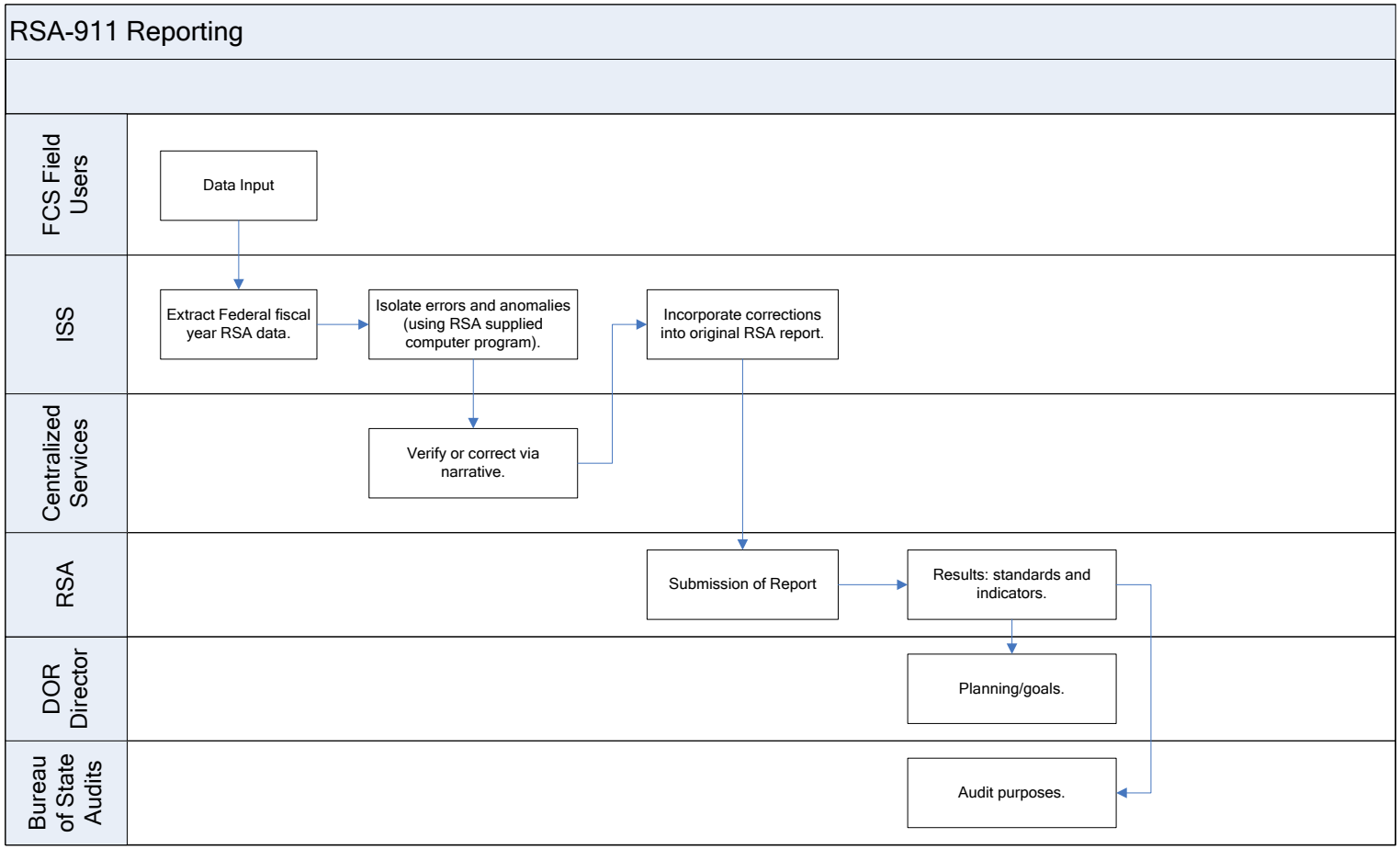
Federal Reporting

DOR must annually submit an RSA-911 report. Rehabilitation Services Administration (RSA) prepares an application to validate the reports. Four (4) program staff spends 60 hours and one (1) senior member of the IT staff spends at least half time cleansing the data in order to prepare the report. Centralized Services program staff takes approximately two

weeks to review the errors or anomalies RSA finds in a preliminary draft and make narrative corrections, as FCS cannot accept corrections to the production system. DOR has been forced to request extensions in three (3) of the last four (4) years because of the effort and time required to make the necessary corrections for the reported data.

The following figure illustrates the RSA-911 Reporting process.

Figure 11. RSA-911 Reporting



Management Reporting

The poor quality of data in FCS makes accurate monitoring and reporting difficult to accomplish. DOR spends a large quantity of time cleansing consumer data for accurate reporting and has created numerous workarounds to provide management information. Managers state it takes at least five days for staff to complete the preparation of a requested report.

3.1.3 Impact of the Proposal

ERS will impact the vast majority of business processes and activities within the department. The ERS Project will help eliminate duplicate data entry, redesign inefficient case management processes, provide internal and external stakeholders with timely and accurate information, and provide additional business functional capabilities including improved data analysis and reporting.

3.1.4 Consumers and Users

The following are groups that will be impacted by the proposal.

- **Consumers —** Consumers include those individuals seeking vocational rehabilitation services. The DOR relies on its automated systems to track consumer case information and case progression.
- **Stakeholders —** Stakeholders include those individuals and organizations that are impacted by or are interested in influencing program requirements and procedures established by DOR. These stakeholders include, but are not limited to, the State Rehabilitation Council, Employers, California Foundation of Independent Living Centers, Lighthouse for the Blind, Coalition of Service Providers for the Deaf and the Association of Retarded Citizens.
- **Users —** The primary users of DOR data are department staff and management accessing information through computer screens and reports.
- **Partner Agencies —** Partner agencies include the Employment Development Department, Social Security Administration, Department of Mental Health, Department of Education, RSA, service providers and vendors. These groups share information with DOR, but FCS is currently unable to directly electronically interface with these agencies on a real-time basis and DOR must transfer data via hard copy or disk.

3.1.5 Program Experiencing the Problem

EPS and SSD experience the problems identified in Section 3.2, Business Problem or Opportunity. All operations are hindered by the inability of FCS to support efficient case management.

3.1.6 Conditions Creating the Problem

FCS cannot completely interface with assistive technologies – FCS currently supports over 1878 permanent positions of which approximately 293 employees utilize assistive technologies. Given its antiquity, FCS does not easily interface with assistive technology to provide accessibility for employees with disabilities.

Antiquated technology no longer supported by industry – The existing technical architecture of many of the applications supporting FCS is based on obsolete and antiquated technology, such as Natural (a 4th Generation Program Language). FCS

does not take advantage of current technologies or modern tools to improve development time or quality.

System Design Limitations – The system design of FCS does not allow DOR to achieve its program mandates, support program growth or make effective program decisions in a timely manner. As a result, staff utilize manual processes and maintain multiple, disparate data stores in order to fulfill program objectives. The following subsections describe the design issues with the current system.

Interface Layer

- Counterintuitive screen flow that does not follow the business processes that the systems were built to support (i.e., screens do not take the user to the 'next step' in the process);
- Finite number of lines of entry for case notes and other fields that are not expandable/customizable;
- Application code programmed to "time out" after thirty minutes, destroying case entry progress if not saved by the user;
- Archaic numeric codes that are not well-documented;
- Limited or no system documentation and limited help features other than basic querying;
- Incomprehensible "help" explanations;
- Limited pre-population of known data elements and rudimentary validation logic;
- Data entered on one screen that is not carried over to other screens and must be re-entered;
- Limited search capabilities and returned results that are often inconsistent;
- Lack of data validation, comprehensive word processing capabilities and spell check;
- Inability to cross reference data;
- Inability to cut-and-paste information from one screen to another;
- Inconsistent or inaccurate data due to lack of edit checks;
- Lack of integration with Microsoft Office automation products and the Internet;
- Lack of e-mail access in the application;
- Inability to see or edit created letters on the screen prior to printing; and
- Inability for consumers to enter applications or other information online that can be integrated into a consumer's case file.

Application Layer

- System requirements of a case that force users to create "work a rounds" to complete required processes;

- Inability to accommodate all information required to manage a case;
- Inflexible configuration and very limited ability to incorporate business rules; and
- Complex and time consuming modification of application code, causing delays to implement Federal requirements by at least six to nine months.

Data Layer

- Data relationships that do not support the business (FCS was built for single entry vs. multiple/group entries, which does not allow for the ability to update the same data element across multiple cases);
- Limited ability to maintain data history, so DOR must often find other means to maintain historical information or risk losing it (e.g., changing a consumer's address erases any record of previous addresses as FCS offers no ability to record historical changes to data);
- Limited ability to report individual or department performance in real time; and
- Limited and cumbersome reporting capabilities.

DOR intends to change these conditions by purchasing a commercial-off-the-shelf (COTS) product that interfaces with assistive technologies, is based on industry standards, and provides the flexibility needed to ensure DOR can respond to changing business requirements. DOR will purchase a maintenance contract with the solution provider to ensure the system is always properly documented and updated with the most recent updates in the solution and technical platforms. This will ensure DOR will not fall into the same situation it faces today with antiquated technology that cannot be modified to support its needs.

3.2 Business Problem or Opportunity

The business problems at DOR and the opportunities for improvement include; providing automated functionality that will support staff, allow staff to do their jobs more efficiently and effectively, introduce new functionality that will facilitate various case recording tasks, provide for more accurate case files, timeliness of data, monitoring, reporting and planning. The following subsections describe these problems and opportunities in detail. DOR is currently conducting business process analysis activities that will identify the areas DOR can address prior to new system implementation vs. those that will be addressed as a result of the COTS solution. The results of this analysis will be submitted as an addendum to this FSR.

3.2.1 Business Problems

DOR has identified the following business problems with the current solution.

3.2.1.1 Business Problems

FCS provides limited access to DOR employees with disabilities.

With the current FCS, DOR has been unable to comply with State and Federal disability accessibility laws and standards, specifically Section 508 as referenced in Government Code 11135.

The issue of accessibility is particularly problematic since DOR is an agency that serves, and is responsive to, the needs of people with disabilities. Currently, DOR has 1878 permanent positions of which approximately 293 employees utilize assistive technology. Assistive technology problems with the current FCS are provided below:

- In the mainframe environment, a script or macro has to be written for each screen in the system to enable the interoperability of AT devices and programs. There are over 400 screens comprising the VR system and to-date only 60 screens (15%) have been converted. In addition, when changes to a screen are required, the scripts have to be updated before the change can be implemented. Accessibility issues cause problems for both employees who need assistance as well as ISS staff who must maintain the converted screens and create scripts for those screens not yet converted. Script writing and/or revisions cause delays in meeting employee and consumer needs.
- FCS does not work with screen reader and speech recognition software concurrently. Staff with multiple disabilities may need to use both the screen reader and the speech recognition system in order to effectively perform their job duties. Failure to work simultaneously severely impacts staff's ability to perform tasks. The staff must choose to use one assistive technology or the other within FCS, increasing the probability that staff will either not understand what is written or not be able to effectively communicate in writing when using FCS.

Blind Field Services Spotlight: Darlene Walker, SVRC.

Ms. Walker has been with DOR for 35 years. As a visually impaired counselor, Ms. Walker routinely relies on the assistance of a Support Services Assistant as well as various assistive devices and programs (QX440 Braille display and JAWS screen reader).

Navigating the maze of screens and fields is difficult for sighted users and nearly impossible using JAWS for those without sight. Popup screens introduce another difficulty, and ISS staff routinely are forced to write new scripts to keep JAWS working with each change in FCS.

Ms. Walker states: “FCS is just too cumbersome to use with JAWS.” (July 2005)

- FCS is required to be password protected to prevent unauthorized access. However, JAWS, the most commonly used screen reader system, reads the staff's password aloud when it is being typed, thereby defeating the security purpose of a password.
- Not all FCS forms, letters, and other necessary documents are compatible with current accessibility software.
- FCS does not incorporate Windows functionality such as icons and scrolling, making it difficult for employees to navigate.
- Currently, it is not always possible for a person using a screen reader to utilize a key combination (e.g., ALT+K) to move directly to a specific screen field due to conflicts with FCS key combinations.
- Some documents visible on screen cannot be printed. Similarly, some printable documents are not currently visible on the screen, making it impossible for people who use screen readers to read those documents.
- Assistive technology aspects of FCS training classes and materials are not always updated when programming changes are made to FCS. New employees who begin work after the initial training on the system typically have a more difficult time becoming acclimated to it.

Continuing with FCS does not align with the DOR Strategic Plan

In 2004, DOR created a Strategic Plan with five goals. The replacement of FCS is the first objective of Goal 3 – Improve Department of Rehabilitation Infrastructure. Additionally, DOR's four other strategic objectives are difficult to accomplish using the current FCS application:

- Increase the quality and quantity of employment outcomes.
- Increase the effectiveness and efficiency of vocational rehabilitation services delivery.
- Improve work environment.
- Increased equality for persons with disabilities through systems change.

FCS does not support California Performance Review initiatives

DOR cannot easily meet any of the tenets prescribed in the California Performance Review (CPR). The current system limitations do not help DOR staff improve consumer services. The poor quality of data does not allow for true performance management of DOR staff. Also, FCS does not allow for information sharing internally or with other agencies.

FCS fosters employee inefficiency

Due to limited system design, employees spend an inordinate amount of time trying to enter information in the application, which takes away from time spent providing services for the consumer. Following are examples of the inefficiency fostered by FCS:

- FCS has a counterintuitive screen flow that does not follow the business processes and workflow that the systems were built to support;
- Case management abilities are constricted by the need for multiple interfaces and data stores;
- A significant portion of case information remains in paper format and in alternative application software like MS Word®, MS Excel®, etc. – this does not allow for one data repository for case management;
- Lack of data validation generates data format inconsistencies (e.g. “Street” vs. “St.”), which leads to multiple entries for the same entity; and
- Insufficient vendor search capabilities limit the RC’s ability to find qualified vendors in the application and increases duplicate entry of vendor information.

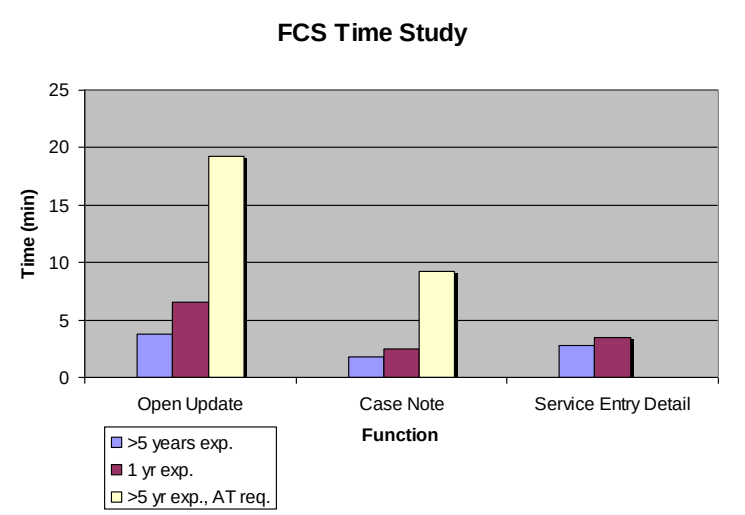
These inefficiencies have resulted in DOR’s difficulty in complying with federal RSA requirements. The following table highlights the areas DOR will improve by implementing a new COTS solution that will help eliminate manual processes and streamline business processes. These reflect measures from 2004 – 2005.

Table 3. Samples of RSA Requirement Challenges

Measurement Area	Measure with Current System	Targeted Improvement with New System
Consumer Waiting List	736 Consumers	Reduction in the waiting list
Overdue Eligibility Determination	8%	Reduce to 5% or less
Successful Closure Rate	54.7%	Meet the RSA requirement of 55.8%

To further understand the current system’s efficiency impacts, in July 2005, DOR conducted a time study to understand the difficulties of learning and using the FCS application. The results of this study are provided in the following spotlight box.

Spotlight: FCS Time Study (July 2005)



Synopsis: This study highlights a number of important facts about the impact difficulties in learning how to use FCS entail:

- **Open Update**: RC's using AT are in dire need of a case management solution that is truly accessible. For each disabled counselor, approximately 45 minutes per week is spent in addition to what a new counselor would spend entering new cases into FCS.
- **Case Note**: In this study, time differences ranged from approximately 1 minute per note (5+ yr. vs. 1 yr.) to 8 minutes per note (5+ yr vs. RC's using AT). Thus, extra time spent on case notes could be as much as 25*8 = 200 minutes every day.
- **Service Entry Detail**: The difference in time to complete an authorization using FCS here was approximately 1 minute, which translates to an extra hour each day for each new CSA performing authorizations.

To gauge the impact of FCS's inherent learning curve, DOR surveyed various RC's (values shown for Open Update and Case Note) and CSAs (values shown for Service Entry Detail).

Open Update: On average, an RC will complete 3 open update screens per week. As shown in the chart, RC's with 5+ years experience can complete this screen in nearly half the time it takes a new RC (1 year experience) to complete and over 5 times faster than an RC relying on assistive technology.

Case Note: On average, an RC will complete 20-25 case notes each day. In completing a typical case note, experienced RC's take nearly as much time as new RC's, while RC's relying on AT still require substantially more time. However, some case notes can take up to 20 minutes each to complete.

Service Entry Detail: CSA's process case notes (typically half of 25 notes per day are authorizations). Each CSA serves 5 RC's, so a typical CSA will process 60 authorizations per day. As shown in the chart, a CSA with 5+ years experience can process a case note in 2/3 the time for a new CSA (1 year experience).

CONCLUSION: Difficulties in both mastering the basics of FCS and using AT in conjunction with FCS create significant inefficiencies. With an accessible, intuitive case management system, time spent struggling with FCS could be spent improving client outcomes instead.

FCS breeds inefficiency, which reduces employee morale and increases the risk for high turnover. Training new staff members to use the application is extremely difficult. District Administrators indicate it takes 6 to 9 months for a user to feel proficient on the commonly used screens.

FCS also increases the possibility of inefficient use of DOR funds. There is no edit check for a service code versus the description of the service so a CSA can mistakenly enter inaccurate data, and provide authorization for a service that the RC did not mean to authorize. The RC would not know of a mistake until much later in the process. FCS does not provide the RC with functionality to immediately track the amount of funds authorized for a consumer. The RC does not have the ability to immediately track the

amount of funds actually expended for a consumer. Also, the inability for the RC to efficiently search against their vendor resource library increases the possibility of using more expensive vendors or vendors that do not have a pre-negotiated contract.

A new COTS system will support DOR's desire to change business processes that will improve the organization's efficiency and effectiveness. Areas for improvement will be identified prior to procuring the new system and shared with Bidders to ensure they demonstrate how their systems are flexible enough to support DOR's current and future business requirements.

Poor data quality severely impacts the business

DOR staff members devote an inordinate amount of effort validating and correcting data in order to generate accurate Federal and management reports. Currently, DOR does not have the ability to use real time data within the application to improve management decisions because the information has yet to be organized and cleansed, or because the report is very difficult and time consuming to generate.

3.2.1.2 Technical Problems

DOR has identified the following technical problems with the current solution. Implementation of a modern COTS solution will allow DOR to address each of these problems.

High cost of maintaining an antiquated system

DOR faces higher costs for maintaining the antiquated mainframe application instead of implementing a more modern solution. The inaccessibility of FCS contributes to the need for more assistive technologies and assistants. Also, the inefficiency fostered by the application diverts staff from conducting normal tasks to undertake data cleansing. As the system ages, and industry moves on to support new technologies, it becomes harder to find individuals who can help support FCS who can program in Natural.

Modern COTS products are built using industry standards and maintained by solution vendors. DOR will address this problem by ensuring it procures not only an updated solution, but also maintenance agreements that ensure a vendor continues to provide DOR with bug fixes and upgrades each year.

FCS is not maintainable

The age of the technology severely impacts the maintainability of the application. The system often goes down during business hours as a result. Changes to FCS functionality are required due to changes in Federal and State laws or changes in business practices. It is difficult to make these changes given the challenging technology and the lack of current system documentation.

DOR largely relies on one senior staff person and one retired annuitant to provide expertise in system maintenance. Other IT staff support required reporting and other

support duties. Due to the lack of resources, some service requests are never able to be addressed. FCS support staff positions are difficult to fill due to the system's technological obsolescence. Many IT professionals do not want to perform legacy development and maintenance because the skills are not transferable to other positions.

Modern COTS solutions are built using SQL and JAVA languages that are supported throughout the vendor community, reducing DOR's reliance on a limited number of individuals to maintain its system. COTS solutions are also sold with maintenance agreements that ensure vendors maintain their systems with current documentation, training materials, and appropriate levels of system support expertise. These services ensure systems do not become a challenge to maintain over time.

3.2.2 Business Opportunities

3.2.2.1 Business Opportunities

DOR has identified the following business opportunities that will come with implementation of a new ERS solution.

Become the model for State and Federal Disability Accessibility Laws and Standards

Deployment of ERS will increase the usefulness of assistive technologies to enable equal access for employees. Additionally, DOR will develop expertise to demonstrate to other agencies and organizations how ADA, Section 508 and 11-135 compliance can be achieved using modern functionality that is more readily accessible.

Improve ability to design program services

ERS will facilitate the use of data to improve management decision-making, allocation of resources and performance assessments. The added efficiency will allow RC's to spend more time performing job development and outreach.

Improve provision of program services

The added efficiency will allow RC's to spend more time with consumers contributing to an improved successful closure rate. This increased efficiency and improved ability to perform vendor management may reduce the cost per case.

3.2.2.2 Technical Opportunities

DOR has identified the following technical opportunity that will come with implementation of a new ERS solution.

Implement a system that complies with the State of California's newly developed technical architecture

This system will be housed at the Department of Technology Services (DTS) Data Center with an architecture that fits within that environment. The system will be based on current industry standards to ensure DTS staff can help support the system over its lifespan.

3.3 Measurable Business Objectives and Impact to DOR If FCS Is Not Replaced

3.3.1 General Objectives

With implementation of FCS, DOR has defined the following measurable business objectives. These objectives were developed based on the analysis of RSA indicators from the past 3 years. ERS will:

Be accessible to users with disabilities

All DOR staff with disabilities will be able to access and use ERS.

Consequences: If DOR is unable to satisfy this objective, it will continue to be out of compliance with State and Federal disability accessibility laws and standards, specifically Section 508 as referenced in Government Code 11135. Continuing lack of accessibility to DOR's IT infrastructure results in disparate treatment and continued personnel services costs associated with hiring Support Service Assistants for users with disabilities.

Increase the direct time for counseling, to include increased timely processing of cases, better IPE development, and resource development

Each RC will increase the quality time for counseling, assessment, eligibility determination, level of significance of disability determination, IPE development and implementation, and closure by one hour per day due to increased functionality and ease of use of ERS technology. Also, the quality time for CSA's will be increased by one hour per day to assist RC and consumers with the daily activities of casework, interaction and assistance with DOR staff.

Consequences: If DOR is unable to satisfy this objective, amount of direct time for counseling will continue to be impaired due to time spent on FCS, an inefficient and inaccessible computer case management system, which will negatively impact employment outcomes. Subsequently this may result in DOR's inability to pass RSA's performance measures, which could jeopardize federal and/or state funding. If DOR does not pass the RSA performance measures, DOR will be required to engage in a lengthy process of complying with a program improvement plan until satisfactory performance is achieved.

Increase the number of referrals

DOR expects a 4% increase in referrals due to increased time for outreach to unserved and underserved populations.

Consequences: If DOR is unable to meet this objective, it would be due to RC's time spent utilizing the outdated FCS, which takes time away from doing outreach to potential consumers. Lack of referrals may jeopardize DOR's ability to pass RSA's performance measures. If DOR does not pass the RSA performance measures, DOR will be required to engage in a lengthy process of complying with a program improvement plan until satisfactory performance is achieved.

Increase the use of presumptive eligibility

DOR anticipates a 50% increase in the use of presumptive eligibility for applicants receiving SSI/SSDI, due to increased effectiveness of tracking and monitoring of SSI/SSDI beneficiaries and an improved reporting methodology.

Consequences: If DOR is unable to satisfy this objective, staff will continue to lack the ability to effectively track and monitor SSI/SSDI beneficiaries to ensure compliance with the presumptive eligibility requirement and to collect reimbursements from SSA for beneficiaries that have achieved a successful employment outcome. In addition, if DOR does not meet this federal requirement, DOR will be required to engage in a lengthy process of complying with a corrective action plan until satisfactory performance is achieved.

Decrease the time from application to eligibility determination

DOR anticipates a 10% decrease in the time from the date of application to the date of eligibility determination and a 50% decrease in the number of cases that exceed the 60-day time frame from application to eligibility determination due to effective, flexible tracking and reminder systems.

Consequences: If DOR is unable to satisfy this objective, FCS will continue to prevent staff from consistently meeting the federal 60-day eligibility requirement. In addition, if DOR does not meet this federal requirement, DOR will be required to engage in a lengthy process of complying with a corrective action plan until satisfactory performance is achieved. This noncompliance may jeopardize federal and/or state funding for DOR.

Decrease the time from eligibility determination to IPE development

DOR anticipates a 10% decrease in time from the date of eligibility determination to the date of IPE development due to effective, flexible tracking and reminder systems and increased functionality and ease of use of ERS system.

Consequences: If DOR is unable to satisfy this objective, continued delay in developing IPE's will result in less consumers participating in the vocational rehabilitation process.

Fewer IPE's subsequently lowers the number of consumers achieving successful employment outcomes and self-sufficiency.

Increase the number of IPE's written per month

DOR expects an increase in IPE's written by each RC by 2.5 in the year after implementation of the new ERS due to increased time to interact with consumers, increased time for internal (counselor-run) assessment, and streamlined development of IPE.

Consequences: If DOR is unable to satisfy this objective, RC's will continue to spend significant time utilizing FCS for other case management activities, which impact the number of IPE's written. IPE's are required to provide consumers with services necessary to achieve a successful employment outcome, which is a RSA performance measure. If DOR does not pass the RSA performance measures, DOR will be required to engage in a lengthy process of complying with a program improvement plan until satisfactory performance is achieved.

Decrease unsuccessful employment outcomes

DOR anticipates a 4% decrease in unsuccessful employment outcomes in the year after implementation of the new ERS due to increased time for internal counselor assessment, IPE development, and counselor monitoring and involvement during IPE implementation.

Consequences: If DOR is unable to satisfy this objective, RC's will continue to spend significant time utilizing FCS instead of providing direct assistance with career exploration, employment preparation, job development and placement to enable consumers in achieving a successful employment outcome. Unsuccessful employment outcomes may jeopardize DOR's ability to pass RSA's performance measures. If DOR does not pass the RSA performance measures, DOR will be required to engage in a lengthy process of complying with a program improvement plan until satisfactory performance is achieved.

Increase successful employment outcomes

DOR anticipates an annual 4% increase in successful employment outcomes (successful closures per RC per month) the year after implementation of the new ERS (given stability of other factors such as the labor market) due to increased time for internal counselor assessment, IPE development and counselor monitoring and involvement during IPE implementation.

Consequences: If DOR is unable to satisfy this objective, RC's will continue to spend significant time utilizing FCS instead of providing direct assistance with career exploration, employment preparation, job development and placement to enable consumers in achieving a successful employment outcome. Diminished employment outcomes may jeopardize DOR's ability to pass RSA's performance measures and lead to continuing consumer reliance on federal and/or state public assistance. If DOR does

not pass the RSA performance measures, DOR will be required to engage in a lengthy process of complying with a program improvement plan until satisfactory performance is achieved.

Increase consumer statewide average hourly wage

DOR anticipates a 2% increase in the statewide average hourly wage for consumers achieving employment (given stability of other factors such as the labor market) in the year after implementation of the new ERS due to increased time for counseling and guidance with consumers and outreach to employers.

Consequences: If DOR is unable to satisfy this objective, RC's will continue to spend significant time utilizing FCS instead of providing direct assistance with employment preparation, job development and placement, all of which enable consumers to obtain employment with hourly wages commensurate with or above the state's average hourly wage. Meeting or exceeding the state's average hourly wage is a RSA performance measure. If DOR does not pass the RSA performance measures, DOR will be required to engage in a lengthy process of complying with a program improvement plan until satisfactory performance is achieved.

Increase compliance with RSA reporting requirements

As the amount of accurate data increases in ERS, the amount of time purifying data for the RSA report will be drastically lowered, which will allow DOR to complete the RSA-911 within the expected timeframes. Any additional time savings generated with the implementation of ERS will be channeled to address compliance with control agency requirements. Furthermore, RSA has indicated that they will no longer give extensions to states unable to produce the report when required.

Consequences: If DOR is unable to satisfy this objective, staff will continue to spend a significant amount of time purifying data for the RSA-911 report and run the risk of being noncompliant with mandated federal and/or state reporting deadlines.

Increase DOR staff employment satisfaction

DOR anticipates an overall 25% increase in DOR staff satisfaction and morale in the first year after implementation of the new ERS, as measured by a staff satisfaction survey. This will be due to accessible technology that allows for decreased time and frustration using and maintaining an obsolete system, and increased time for counseling staff to perform core job duties, improved electronic procurement, purchasing and tracking processes, and flexible management reporting tools based on accurate data.

Consequences: If DOR is unable to satisfy this objective, staff will continue to work with an obsolete and inaccessible FCS, which diminishes staff satisfaction, morale, efficiency and productivity level.

Lower total cost of ownership

DOR will lower the total cost of ownership of the application by moving away from a mainframe environment and toward a browser based environment. The cost of maintenance at DTS will be lowered as a result. The change of technical platforms will eliminate DOR's reliance on a retired annuitant and other staff to make modifications to the system over time. Lowering the cost for supporting the application will allow DOR to divert cost savings to support program activities.

Consequences: If DOR is unable to achieve this objective, it will continue to see the costs of maintaining its current mainframe application increase over time. Should the current employee responsible for maintaining the system leave for any reason, DOR may have to pay higher rates to consultants in the future.

The selected solution will be based on industry standards

DOR will select a solution that is developed using industry standards. DOR will ensure it works with a solution provider with a proven track record of updating its technical frameworks to remain aligned with current industry standards. DOR will be more able to support the new application and lower the total cost of ownership by taking advantage of industry standard agreements that ensure its application is maintained on an annual basis and is updated with the most recent version releases.

Consequences: If DOR is unable to achieve this objective, it will continue to suffer with an outdated application that requires specialized expertise to update and maintain over time.

Business Functional Requirements

3.3.2 Conceptual Model

This section describes the essential characteristics that must be present in the proposed solution to satisfy the objectives described above. A conceptual model of the solution is presented first, followed by functional requirements and infrastructure requirements.

The ERS conceptual model diagram presented on the next page is separated into three major layers:

Interface Layer

The interface layer depicts the key segments of data providers, users, external stakeholders, licensees, and partner agencies, as described in section 3.1.4. These entities will provide and access data using a variety of methods including online, diskette/tape transfer, in person, by mail, by phone, and by fax. The interface layer includes external stakeholders (government agencies, advisory groups, etc), DOR customers and participants (Vendors, Medical and Psychological Providers, etc), and DOR staff.

Application Layer

The application layer depicts business units and internal processes and represents the overall required functionality the new solution must provide. This includes all current FCS functions as well as additional functionality required to meet program needs. For DOR, the application layer is divided into the following functional areas:

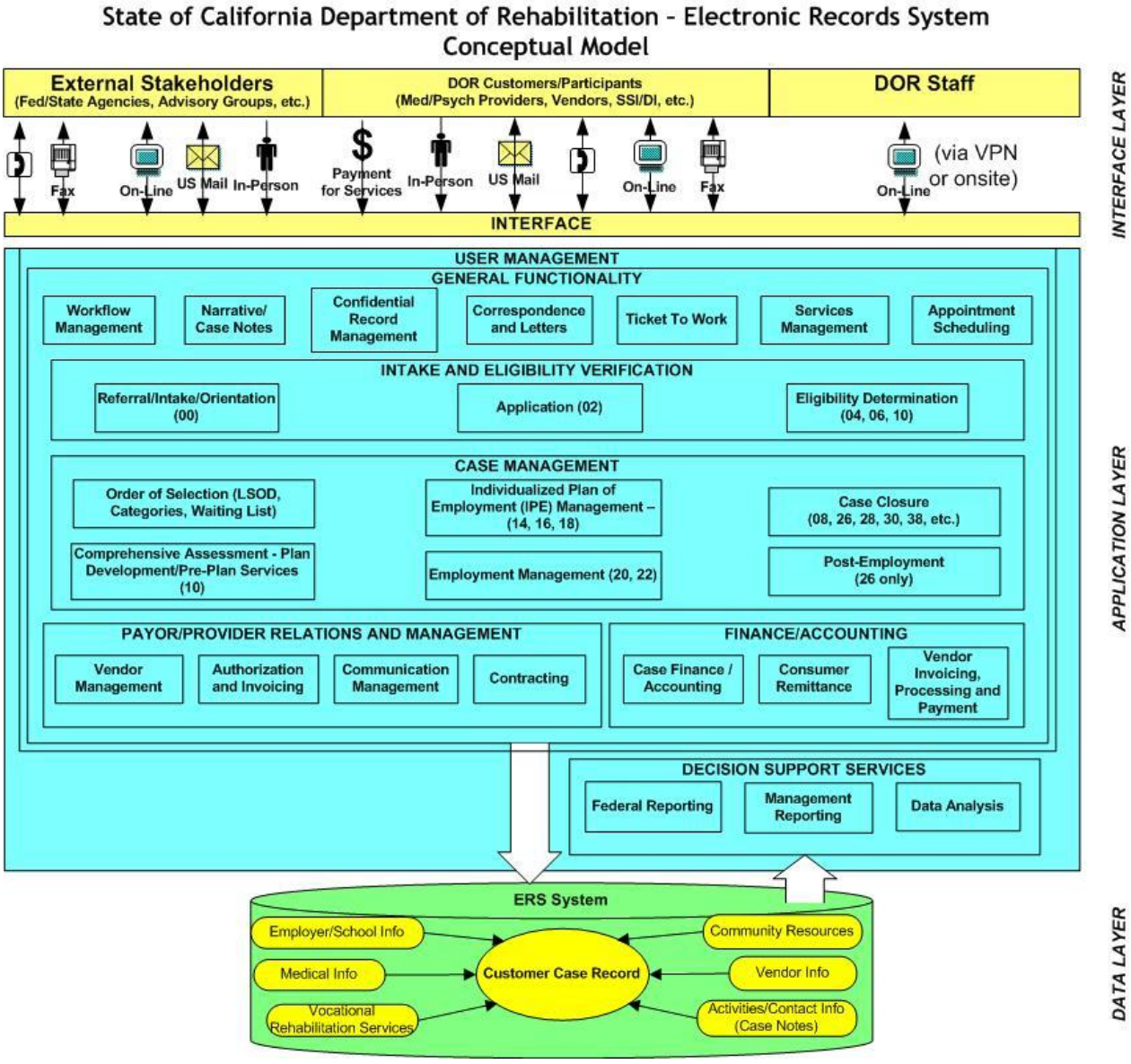
- General Functionality
- Intake and Eligibility Verification
- Case Management
- Payor/Provider Relations and Management
- Finance/Accounting
- Decision Support Services

The numbers that follow functional area titles in the conceptual model relate to the Rehabilitation Process status codes identified earlier in Table 2.

Data Layer

The data layer represents the technical foundation the new solution is based on and is comprised of all major data entities required to support the program. Examples of the typical types of information included in the solution are shown in the conceptual model.

Figure 12. Electronic Records System Conceptual Model



Source: Gartner, June 2005

3.3.3 Business Functional Requirements

This section contains the key business functional requirements needed to achieve the objectives defined in Section 3.3. The numbers that follow functional headings relate to the Rehabilitation Process status codes identified earlier in Table 2. The second column identifies whether the requirements is required for the solution, or is a desirable element. The final column notes if two or more of the COTS vendors responding to the Request for Information (RFI) stated that a minor or major modification to their core COTS product or inclusion of an ancillary product was necessary to meet the identified requirement.

Table 4. Business Functional Requirements

General Functionality		
Workflow Management		
■ The Department requires the ability to apply standard workflows to enforce process consistency.	Required	
■ The Department requires the ability to edit the standard workflow (e.g., changes to Order of Selection).	Required	
■ The Department requires the ability to assign administration rights per user, unit and district.	Required	
■ The Department requires the ability to assign approval rights and automatically route certain services (based on program rules) for appropriate levels of approval.	Required	
■ The Department requires the ability to automatically assign the federally regulated status of the consumer based on workflow events.	Required	
■ The Department requires the ability for users to easily manage their open cases and tasks using features including, but not limited to:	Required	
❑ Caseload Management – including the auto-scheduling of tasks according to pre-defined workflow rules	Required	
❑ Reminders for upcoming tasks	Required	
❑ Alerts for pending or overdue tasks	Required	
❑ Ability to readily determine case expenditures and payment status by client and service	Required	
❑ Allow multiple employees to access a case concurrently	Required	
■ The Department desires the ability to synchronize scheduled appointments with Outlook	Desired	
■ The Department requires the ability to allow other staff to view, edit and add information to RC cases.	Required	
■ The Department requires the ability to identify sensitive cases and limit user access to this case information.	Required	
■ The Department requires the ability to support internal electronic approvals (e.g., for all signed approvals needed, maintenance and transportation claims).	Required	COTS Mod.
■ The Department requires the ability for supervisors to monitor counselor or unit workloads and re-assign tasks when appropriate.	Required	

■ The Department requires the ability to track and record authorization of assessments and services for consumers.	Required	
Narrative/Case Notes		
■ The Department requires the ability to capture and maintain free-form case notes.	Required	
■ The Department requires the ability to search case notes based on user-defined criteria.	Required	COTS Mod.
■ The Department desires the ability to alert a counselor that a file has been changed by the consumer/supervisor/other counselor.	Desired	COTS Mod.
■ The Department desires the ability to allow the consumer to request changes to limited case information via the Internet (e.g., biographic, demographic information and consumer comments).	Desired	COTS Mod.
■ The Department desires the ability to review any recommended changes submitted by the consumer.	Desired	
Confidential Records Management		
■ The Department requires the ability to generate a request for confidential (e.g., medical, social, educational, employment, etc.) records.	Required	
■ The Department requires the ability to upload from other agencies (e.g., medical providers, health services, etc.) requested confidential records for an individual.	Required	
■ The Department requires the ability to store scanned confidential record images.	Required	COTS Mod.
Correspondence / Letters		
■ The Department requires the ability to generate correspondence / letters to consumers or vendors	Required	
■ The Department requires the ability to generate mass mailings to selected consumers.	Required	COTS Mod.
Ticket To Work		
■ The Department requires the ability to flag a consumer as someone who could have a Ticket to Work.	Required	
■ The Department requires the ability to track and record “marketing” activities conducted with a consumer who may have a Ticket To Work.	Required	COTS Mod.
■ The Department requires the ability to generate a Form SSA 1365 (Ticket Assignment Form) using Individualized Plan for Employment (IPE) information within the system.	Required	
■ The Department requires the ability to track and report on Ticket To Work (e.g., date assigned, assignment status, if not assigned to DOR, then to whom it has been assigned).	Required	
■ The Department requires the ability to track the receipt of reimbursements from Employment Networks who have been assigned the Ticket by the Consumer and are sharing costs for services with DOR.	Required	COTS Mod.
■ The Department requires the ability to track a consumer’s use of Ticket to Work for 5 years.	Required	COTS Mod.

■ The Department requires the ability to track for 5 years reimbursements made related to a consumer's Ticket to Work.	Required	COTS Mod.
Service Management		
■ The Department requires the ability to scan and/or import invoices and other vendor/service-related documents and attach them to a consumer case.	Required	COTS Mod.
■ The Department requires the ability to track the issuance and disposition of equipment to a consumer's case.	Required	
■ The Department requires the ability to seamlessly transfer cases between districts.	Required	
■ The Department requires the ability to view (not edit) other cases based on defined security/assignments outside the district.	Required	
Appointment Scheduling		
■ The Department requires the ability to automatically generate appointment notices.	Required	
■ The Department desires the ability to schedule appointments within the context of the case workflow (e.g., schedule follow-up in 3 months).	Desired	COTS Mod.
Intake and Eligibility Verification		
Referral/Intake/Orientation (00)		
■ The Department requires the ability to record and track people who are interested parties, but not yet applicants or consumers (e.g., through phone calls, orientation participation, walk-ins, etc.).	Required	
■ The Department requires the ability to migrate information to an applicant case file.	Required	
Application (02)		
■ The Department requires the ability to record and track the official date of application according to Department definition.	Required	
■ The Department requires the ability for consumers to submit applications via the Internet.	Required	COTS Mod.
■ The Department requires the ability to capture all Federal required and Department desired applicant related information including, but not limited to:	Required	
❑ Name	Required	
❑ DOB	Required	
❑ SSN	Required	
❑ Prior education	Required	
❑ Past work experience	Required	
❑ Nature of disability	Required	
❑ Other demographic information	Required	
❑ Comments – where the user can record initial intake interview notes.	Required	
■ The Department requires the ability to determine if the consumer has previously applied for DOR services.	Required	

■ The Department requires the ability to capture language of preference.	Required	
■ The Department desires the ability to view/print all future documents in that preferred language as well as English.	Desired	COTS Mod.
Eligibility (04/06/10)		
■ The Department requires the ability to record and track whether an applicant is or is not eligible for services and the reasons why/why not.	Required	
■ The Department requires the ability to record and track whether an applicant is "presumptively eligible" and links this eligibility determination to their application information.	Required	COTS Mod.
■ The Department requires the ability to record and track whether further assessment is needed to determine eligibility, including Trial Work Experience and Extended Evaluation.	Required	
■ The Department requires the ability to record and track determination of eligibility extension.	Required	
■ The Department requires the ability to generate and edit eligibility letters to consumers.	Required	
Case Management		
Order of Selection		
■ Level of Significance of Disability (LSOD)	Required	
❑ The Department requires the ability to assess and/or extend determination of LSOD and assign a pre-determined or user-defined level.	Required	
■ Waiting List	Required	
❑ The Department requires the ability to record and track when an individual is placed on a waiting list.	Required	
❑ The Department requires the ability to monitor the waiting list.	Required	
❑ The Department requires the ability to track that a consumer desires to remain on the waiting list (every 90 days).	Required	
❑ The Department requires the ability to automatically generate and mail customizable wait list notification forms to consumers.	Required	
■ Categories	Required	
❑ The Department requires the ability to automatically generate and mail category notification forms to consumers.	Required	
❑ The Department requires the ability to track the availability within categories due to Department budget constraints.	Required	
Comprehensive Assessment (plan development/pre-plan services - 10)		
■ The Department requires the ability to store vocational, medical and psychological evaluation reports.	Required	COTS Mod.
■ The Department requires the ability to track and record the agreement between the RC and consumer of when the IPE must be developed.	Required	
■ The Department requires the ability to upload data based on vocational goal DOT/SOC code.	Required	

■ The Department requires the ability to track and record the expected date of plan completion.	Required	
■ The Department desires the ability to scan case-related documents and associate those scanned files with a particular consumer (e.g., situational assessments, training reports, transferable skills, previous employment, educational materials).	Desired	COTS Mod.
■ The Department desires the ability to upload labor market information to the consumer case record.	Desired	COTS Mod.
Individualized Plan of Employment (IPE) Management (14, 16, 18)		
■ The Department requires the ability to create and manage IPE's for each consumer.	Required	
■ The Department requires the ability to generate an annual IPE review notification that is automatically sent to the RC and consumer.	Required	
■ The Department requires the ability to customize the IPE form to meet the needs of the RC/consumer (e.g., list of services, form fields, list of vendors).	Required	
■ The Department requires the ability to automatically authorize services based on defined program rules.	Required	COTS Mod.
■ The Department requires the ability to print the IPE form.	Required	
■ The Department requires the ability to generate tasks and reminders for services stated within the IPE.	Required	
Employment Management (20, 22)		
■ The Department requires the ability to track and record reassessment of services based on program rules related to the 20 status (e.g., length of time on status, IPE services, plan status).	Required	
■ The Department requires the ability to track and record employment statistics (e.g., the employment, place of employment, salary).	Required	
■ The Department requires the ability to track employer information including, but not limited to employer name and location.	Required	
■ The Department requires the ability to automatically notify RC's that closure requirements have been met (e.g., assessment of workplace, workplace stability).	Required	
Case Closure (08, 26, 28, 30, 38)		
■ The Department requires the ability to record and track all types of case closures (08 – ineligibility, 26 – successful closure, 28 – services provided, but unemployed, 30 – plan developed, but no services provided, 38 – closed from waiting list).	Required	
■ The Department requires the ability to verify, record and track that all funds associated with a case have been used or disencumbered.	Required	
■ The Department requires the ability to verify, record and track that all outstanding consumer equipment has been assigned to the consumer or returned.	Required	COTS Mod.
■ The Department requires the ability to generate a closure letter.	Required	
■ The Department requires the ability to limit the amendment of case information once the case is closed.	Required	

Post-Employment		
■ The Department requires the ability to issue and track post-employment services to successfully closed cases (26) as required using the Department's regulations.	Required	
■ The Department requires the ability to create and track re-authorizations for closed cases.	Required	
■ The Department requires the ability to perform and track the results for a reassessment of eligibility.	Required	COTS Mod.
Finance/Accounting		
Financial Accounting for Cases		
■ The Department requires the ability to associate authorizations with received invoices, imprest cash, CAL-Card, checks, ISP's and bank drafts.	Required	
■ The Department desires the ability to associate authorizations with EBT/Debit Card and Electronic Funds Transfer (EFT) transactions.	Desired	
■ The Department requires the ability to track and record the account balance for each consumer based on authorizations (encumbrance and expenditure)	Required	
■ The Department requires the ability to have automated disencumbering and reincumbering based on defined business rules (e.g. automatic disencumbrance related to Final Pay).	Required	COTS Mod.
■ The Department desires the ability for automatic prior notification of pending disencumbrances.	Desired	
Consumer Remittance		
■ The Department requires the ability to track and record cash disbursements according to defined business rules.	Required	
■ The Department requires the ability to issue bank drafts and revolving fund checks.	Required	COTS Mod.
■ The Department desires the ability to issue EBT/Debit Cards and pay via EFT.	Desired	
■ The Department requires the ability to issue (and track) payments to consumers.	Required	
■ The Department requires the ability to track credit memos.	Required	
Vendor Invoicing, Processing, and Payment		
■ The Department requires the ability to track authorizations and invoices.	Required	
■ The Department requires the ability to issue and track bank drafts and revolving fund checks.	Required	
■ The Department requires the ability to issue and track CalCard transactions.	Required	COTS Mod.
■ The Department desires the ability to issue and track EBT/Debit Card and EFT transactions.	Desired	
■ The Department requires the ability to track credit memos.	Required	
■ The Department requires the ability to establish a vendor account and to track authorizations or payments against the vendor account.	Required	

■ The Department requires the ability to track and approve service issuance of payments for pre-negotiated contract agreements with vendors.	Required	
Payor/Provider Relations and Management		
Vendor Management		
■ The Department requires the ability to establish, track and update vendor profiles including, but not limited to:	Required	
❑ Multiple vendor locations	Required	
❑ Vendor information (e.g., Federal Tax ID #, 204 Form, location, contact information, certifications, accreditation, school survey).	Required	
❑ Type of services provided	Required	
❑ Classifications (e.g., DVBE, small business)	Required	COTS Mod.
❑ Payment methods accepted (could vary per service or per location)	Required	
❑ Status as a leveraged procurement vendor	Required	
❑ Vendor rates/pricing	Required	
■ The Department requires the ability to establish a “parent/child” relationship between a major vendor and all its locations.	Required	
■ The Department requires the ability to record and track status of vendor service provision (e.g., active, inactive).	Required	
■ The Department requires the ability to record and track pre-negotiated contract agreements with vendors.	Required	
■ The Department requires the ability to search for vendors using a variety of search queries (e.g., vendor name, vendors in a city/state/zip, type of services offered, preferred vendors, price).	Required	
■ The Department requires the ability to be alerted of vendor certification, CARF (Commission on Accreditation of Rehabilitation Facilities) accreditation or vendor evaluation.	Required	COTS Mod.
■ The Department requires the ability to record and track vendor invoice disputes.	Required	
Communications Management		
■ The Department requires the ability to generate letters to vendors.	Required	
Contracting		
■ The Department requires the ability to store service information for vendors contracted with the Department.	Required	
■ The Department requires the ability to track consumers served by contract vendors (e.g., number of consumers served by a co-op).	Required	
■ The Department requires the ability to track and record consumer activities, funds and money spent for Establishment Grants.	Required	
Reporting Services		
■ The Department requires the ability to generate management reports:	Required	
❑ Performance reports	Required	COTS Mod.
❑ Financial reports	Required	COTS Mod.

❑ Vendor Management reports	Required	COTS Mod.
❑ Federal Reports	Required	COTS Mod.
■ The Department requires the ability to provide management reporting tools to obtain performance data.	Required	
■ The Department requires the ability for users to readily generate self-performance reports.	Required	
■ The Department requires the ability to generate reports and track report history.	Required	
■ The Department requires the ability to generate a report of cases, for instance, by status, by time period, cases still pending, cases opened, cases closed.	Required	
■ The Department requires the ability to generate a case summary report.	Required	
■ The Department requires the ability to generate an historical view of data from a prior point of time in history – up to seven years.	Required	
■ The Department requires the ability to produce standard and *ad hoc* reports.	Required	

3.3.4 Infrastructure Requirements

The following is a list of infrastructure requirements that must be fulfilled to support the project.

Table 5. Infrastructure Requirements

System Administration
User Management
■ System must provide the ability to add and activate users to the application.
❑ System must capture specific information regarding the user (e.g., language, specialization, qualification, approval authority)
■ System must provide the ability to deactivate users in the application.
■ System must provide the ability for users to manage their profile and passwords.
■ System must provide the ability to indicate that Supervisor approval is required for specific functions:
❑ Authorizations
❑ Specific expenditure amounts
❑ Case Closure
■ System must provide the ability to indicate who each user's Supervisor is pertaining to approval rights.
■ System must provide the ability to define access rights for individual users.
■ System must provide the ability for system administration (e.g., set and reset passwords).
Audit
■ System must provide the ability to generate an audit report for all records and transactions.
■ System must provide audit-tracking reports for user access and usage logs.

■ System must provide an audit trail of all activities.
Security
■ System must be implemented with a security infrastructure and tools for protection of programs and data from intentional unauthorized access attempts as well as security breaches due to accidental causes.
■ System must provide an efficient, flexible way to control and administer multiple levels of user access.
■ System must provide the ability to control/allow access to sensitive consumer records (e.g., identity) to identified users/groups.
■ System must provide the ability to encrypt identified data elements.
Performance
■ System must provide a high level of performance at all times, including during peak periods.
Availability
■ System must operate on a 24x7 basis except during required maintenance and any unavailability due to off-hour batch processing.
■ System must adhere to necessary disaster recovery requirements ensuring that the business is not significantly impacted due to system failure.
User Interface
User Interface
■ System must comply with State and Federal disability accessibility laws and standards, specifically Section 508 of the Rehabilitation Act as referenced in Government Code 11135.
■ System must be accessible to DOR staff and interface with assistive technologies with minimal configuration.
■ System Web pages accessed by external users must be consistent with State of California standards and be accessible by major browsers (e.g., MS Internet Explorer, Netscape Navigator, Mozilla Firefox).
■ System must provide real time access to information from business offices, district offices, central offices and remote locations (i.e., access from home).
■ System must provide multi-user access to all modules/functions within the system.
■ System must provide the ability to change color/font scheme of the user screen.
■ System must provide spell check and other standard MS Word® edit features.
■ System must provide the ability to change cursor style (e.g., block, underscore).
■ System must provide on-line secure access via Web-enabled technologies by authorized external stakeholders and the general public.
❑ System must give consumers limited access to input information needed for case files (e.g., application information, consumer profile, and employment history).
❑ System must give ability for consumers and staff to mutually work on the IPE or send it back and forth during the time of plan development.
❑ System must give the ability to approve/reject consumer entered information.
Help Functionality
■ System should provide online, context sensitive help at the module, function/screen, and field level.
■ System should provide online user documentation that is indexed and searchable.

Database Management
■ System must utilize a modern RDBMS with SQL capabilities.
■ System must provide encrypted and non-encrypted data import/export functionality to receive/send standard format data from/to external parties.
■ System must provide tools to support database backup and recovery procedures.
Network and Operating Systems
■ System must operate within the existing State telecommunications environment.
■ System must use industry standard network protocols.
■ System must provide the ability to choose a printer outside the user's office.
■ System must provide the ability to restrict which printers are available for individual functions.
Application Architecture
■ System must provide a Web-based user interface for all system applications and modules used by external users.
■ System must co-exist in an environment that includes multiple applications and must provide interoperability with third-party applications.
Interfaces
■ System must have the ability to export and import data to/from external stakeholders (e.g., SSA) in electronic format.
■ System must have the ability to interface with the following existing DOR mainframe systems:
❑ Financial Management System
❑ Personnel Management System

3.3.5 Traceability Matrix

The following traceability matrix provides a visual representation of the relationship between business problems or opportunities, business objectives and system functional and technical requirements. This matrix does not include all functional requirements, but representative requirements.

Table 6. ERS Traceability Matrix

Business Need (Problem or Opportunity)	Business Objective	Representative Functional/Technical Requirement(s)
Business Problems		
FCS provides limited access to DOR employees with disabilities.	■ Be accessible to users with disabilities ■ The selected solution will be based on industry standards	■ System must comply with State and Federal disability accessibility laws and standards, specifically Section 508 of the Rehabilitation Act as referenced in Government Code 11135. ■ System must be accessible to DOR staff and interface with assistive technologies with minimal configuration.
Continuing with FCS does not align with the DOR Strategic Plan	■ Increase the direct time for counseling, to include increased timely processing of cases, better IPE development, and resource development ■ Lower total cost of ownership	■ The Department requires the ability to apply standard workflows to enforce process consistency. ■ The Department requires the ability for supervisors to monitor counselor or unit workloads and re-assign tasks when appropriate. ■ The Department requires the ability to provide management reporting tools to obtain performance data.
FCS does not support California Performance Review initiatives	■ Increase the direct time for counseling, to include increased timely processing of cases, better IPE development, and resource development ■ Increase compliance with RSA reporting requirements	■ The Department requires the ability to apply standard workflows to enforce process consistency. ■ System must operate within the existing State telecommunications environment. ■ The Department requires the ability to provide management reporting tools to obtain performance data.

Business Need (Problem or Opportunity)	Business Objective	Representative Functional/Technical Requirement(s)
FCS fosters employee inefficiency	■ Increase the direct time for counseling, to include increased timely processing of cases, better IPE development, and resource development ■ Increase the number of referrals ■ Increase the use of presumptive eligibility ■ Decrease the time from application to eligibility determination ■ Decrease the time from eligibility determination to IPE development ■ Increase the number of IPE's written per month ■ Decrease unsuccessful employment outcomes ■ Increase successful employment outcomes ■ Increase consumer statewide average hourly wage ■ Increase DOR staff employment satisfaction	■ The Department requires the ability to create and manage IPE's for each consumer. ■ The Department requires the ability to record and track whether an applicant is "presumptively eligible" and links this eligibility determination to their application information. ■ The Department requires the ability to record and track whether an applicant is or is not eligible for services and the reasons why/why not. ■ The Department requires the ability to create and manage IPE's for each consumer. ■ The Department requires the ability to track and record reassessment of services based on program rules related to the 20 status (e.g., length of time on status, IPE services, plan status). ■ The Department requires the ability to track and record employment statistics (e.g., the employment, place of employment, salary). ■ The Department requires the ability to issue and track post-employment services to successfully closed cases (26) as required using the Department's regulations.
Poor data quality severely impacts the business	■ Increase compliance with RSA reporting requirements	■ System must utilize a modern RDBMS with SQL capabilities. ■ The Department requires the ability to apply standard workflows to enforce process consistency.
Technical Problems		
High cost of maintaining the antiquated system	■ Lower total cost of ownership ■ The selected solution will be based on industry standards	■ System must provide a Web-based user interface for all system applications and modules used by external users.
FCS is not maintainable	■ The selected solution will be based on industry standards	■ System must utilize a modern RDBMS with SQL capabilities ■ System must use industry standard network protocols
Business Opportunities		

Business Need (Problem or Opportunity)	Business Objective	Representative Functional/Technical Requirement(s)
Become the model for State and Federal Disability Accessibility Laws and Standards	■ Be accessible to users with disabilities	■ System must comply with State and Federal disability accessibility laws and standards, specifically Section 508 of the Rehabilitation Act as referenced in Government Code 11135. ■ System must be accessible to DOR staff and interface with assistive technologies with minimal configuration.
Improve ability to design program services	■ Increase compliance with RSA reporting requirements ■ Be accessible to users with disabilities ■ The selected solution will be based on industry standards	■ The Department requires the ability to generate management reports ■ The Department requires the ability to provide management reporting tools to obtain performance data.
Improve provision of program services	■ Increase the direct time for counseling, to include increased timely processing of cases, better IPE development, and resource development ■ Increase the number of referrals ■ Increase the use of presumptive eligibility ■ Decrease the time from application to eligibility determination ■ Decrease the time from eligibility determination to IPE development ■ Increase the number of IPE's written per month ■ Decrease unsuccessful employment outcomes ■ Increase successful employment outcomes ■ Increase consumer statewide average hourly wage	■ The Department requires the ability to create and manage IPE's for each consumer. ■ The Department requires the ability to record and track whether an applicant is "presumptively eligible" and links this eligibility determination to their application information. ■ The Department requires the ability to record and track whether an applicant is or is not eligible for services and the reasons why/why not. ■ The Department requires the ability to create and manage IPE's for each consumer. ■ The Department requires the ability to track and record reassessment of services based on program rules related to the 20 status (e.g., length of time on status, IPE services, plan status). ■ The Department requires the ability to track and record employment statistics (e.g., the employment, place of employment, salary). ■ The Department requires the ability to issue and track post-employment services to successfully closed cases (26) as required using the Department's regulations.
Technical Opportunities		

Business Need (Problem or Opportunity)	Business Objective	Representative Functional/Technical Requirement(s)
Implement a system that complies with the State of California's newly developed technical architecture	■ Lower total cost of ownership ■ The selected solution will be based on industry standards	■ System must provide a Web-based user interface for all system applications and modules used by external users. ■ System must utilize a modern RDBMS with SQL capabilities ■ System must operate within the existing State telecommunications environment. ■ System must use industry standard network protocols

4.0 Baseline Analysis

The purpose of this section is to provide a clear understanding of the technical environment and infrastructure that currently supports Department of Rehabilitation (DOR) business functions. This section builds upon the Business Case provided in Section 3, further highlighting the need to implement the Proposed Solution described in Section 5.

Table 7. Baseline Analysis Sub-Sections

4.1 Current Method
4.1.1 Objectives of the Current System
4.1.2 Ability to Meet Workload
4.1.3 Internal User Satisfaction
4.1.4 External User Satisfaction
4.1.5 Technical Satisfaction
4.1.6 Data Input and Output
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4.1.8 Security, Privacy and Confidentiality
4.1.9 Equipment Requirements
4.1.10 Software Characteristics
4.1.11 Internal and External Interfaces
4.1.12 Personnel Requirements
4.1.13 System Documentation
4.1.14 Failures of the Current System
4.2 Technical Environment
4.2.1 Expected Operational Life
4.2.2 External Systems(s) Interface(s)
4.2.3 State-Level Information Processing Policies
4.2.4 Financial Constraints
4.2.5 Legal and Public Policy Constraints
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4.3.1 Desktop Workstations

4.3.2 LAN Servers
4.3.3 Network Protocols
4.3.4 Application Development Software
4.3.5 Personal Productivity Software
4.3.6 Operating System Software
4.3.7 Database Management Software
4.3.8 Application Development Methodology
4.3.9 Project Management Methodology

4.1 Current Method

This section provides a detailed description of how DOR uses the Field Computer System (FCS). The current methods rely on non-integrated technologies and manual processes.

DOR works in partnership with consumers and other stakeholders to provide services and advocacy resulting in employment, independent living and equality for individuals with disabilities. Working with diverse groups of individuals, DOR provides vocational rehabilitation (VR) services to eligible Californians. VR services are individually designed to assist individuals with disabilities to become employed and include a variety of services, such as counseling and guidance, training, and job placement.

Further information about the current method is provided in the sections below, as well as in Section 3.1.

4.1.1 Objectives of the Current System

The current system for case management consists of a collection of non-integrated applications, including FCS, MS Word®, MS Outlook®, and Internet Explorer. FCS was implemented in 1990 to partially automate DOR case services functions that were previously done solely on paper. Many of DOR's functions are accomplished using FCS, but there are a number of business functions that remain a paper-only process due to FCS limitations. As program requirements change as a result of new legislation, commensurate changes in FCS are made (where possible) to support these requirements.

4.1.2 Ability to Meet Workload

DOR's current methods hinder effective and efficient case management and processing, threaten information accuracy, and create significant and unnecessary work backlogs. Each of these problems is addressed individually below.

- **Inefficient case management and processing** – As mentioned previously, opening a case record and case management processes involve a variety of activities, including initial interview and eligibility, day-to-day case management

(including the creation of an Individualized Plan for Employment (IPE)), and post-closure services. FCS hinders every aspect of the case management process as a result of various shortcomings such as integration with external programs/entities, convolution of and number of screens necessary to accomplish even the simplest task, and lack of basic built-in search, query and automation capabilities.

- **Information Inaccuracies** – As a result of FCS's functional shortfalls, counselors are forced to duplicate information from the hard copy case file into FCS. For example, justification statements for services provided in the IPE may come directly from a written report submitted by a vendor in MS Word® electronically. If FCS allowed copy and paste functions or integration of the file electronically, the RC would not have to re-type the information. Since this capability does not exist, conflicting and/or overlapping information may result, extending the time the counselor spends assessing and managing the case.
- **Significant and Unnecessary Work Backlogs** – FCS shortcomings cause work backlogs by requiring the user to re-enter any case data that has not been saved within 30 minutes (all recently entered case data is lost if not saved in 30 minutes from the start of the session). Users that manage to save entered case information are automatically routed to an initial "main menu" screen, forcing them to navigate back to the particular client and FCS function to continue adding information. Various menus have been developed to prevent this timeout issue, but are convoluted, add to user confusion, and often do not work to save information.

4.1.3 Internal User Satisfaction

Internal users primarily include DOR field staff and management. Data gathering conducted as part of the Feasibility Study revealed a prevailing consensus that FCS is a difficult, cumbersome application that requires extensive time and training, with little return in productivity gains. The following subsections provide more detail on staff and management perspectives.

Staff: When individuals are initially hired as counselors at DOR, training on the FCS system can take upwards of 8 months to become proficient in basic case management and years to master the various intricacies and workarounds inherent in the system. In fact, some veteran users of FCS report that there are still many things they learn from other users, even after years of experience. The difficulty in using FCS results in counselors focusing on learning how to use the system, sacrificing time that should be spent providing services to consumers. Once proficiency is achieved, users continue to depend on cheat sheets and boiler plates to maintain a level of efficiency with case management. Users have experienced many other issues leading to dissatisfaction, including:

- **Limited display of case information** – FCS's inability to display basic case information (e.g., client name, SSN, status) on each screen. Staff is thus required to refer to written information so it is accessible when needed.

- **Aging/cumbersome screen navigation** – New users are accustomed to more up-to-date technology, which makes learning and remembering functions within FCS difficult.
- **Cryptic system messages** – Many of the messages intended to assist users with troubleshooting are difficult to decipher and are not presented in complete sentences and these messages often do not provide a solution for user issues.
- **Poor system documentation** – Help documentation is convoluted and sometimes nonexistent in FCS. Users rely on help from more senior colleagues (taking time away from their duties) and use various "cheat sheets" to learn and master using FCS. Staff must often call Central Office help desk regarding FCS issues that takes time away from other duties of both ISS staff and the field staff.
- **System shutdowns during workday** – FCS often goes down for hours at a time in the middle of the workday for unscheduled maintenance, and counselors are sometimes given only a few minutes notice before access to FCS is dropped.

Administration: Administrative users utilize FCS to create mandated reports as well as internal ad hoc reports for employee and organizational performance monitoring and measurement. As a result of the limited field sizes, structure, and flexibility, management cannot extract data necessary to meet all of the reporting requirements imposed on them by various external and internal groups in a timely manner. This causes delays in providing reports.

4.1.4 External User Satisfaction

External users include stakeholders outside of DOR, such as advocacy groups, employers and local, State and Federal agencies. Current methods create difficulty fulfilling business objectives, including meeting external user needs. These difficulties include:

- **Lack of Compliance with State/Federal Laws and Mandates** – As mentioned earlier, DOR must annually submit an RSA-911 report, which contains records (96 different areas) pertaining to all individuals whose case record was closed within a given fiscal year. The records in this report contain data such as Name, SSN, DOB, date of IPE, etc. RSA annually provides an electronic program that verifies the RSA-911 data set provided to RSA by DOR. Executing this program on DOR's data set has historically resulted in approximately 700-800 errors. Fixing errors often takes weeks, causing delays in reporting that can lead to decreased RSA funding. Title 1 of the Rehabilitation Act states the authority of the RSA Commissioner to withhold payments to the State, as shown in the excerpt below:

  > *(c) Withholding*
  > *If the Commissioner determines that a State whose performance falls below the established standards has failed to enter into a program improvement plan, or is not complying substantially with the terms and conditions of such a program improvement plan, the Commissioner shall, consistent with subsections (c) and (d) of section 107, reduce or make no further payments to the State under this*

program, until the State has entered into an approved program improvement plan, or satisfies the Commissioner that the State is complying substantially with the terms and conditions of such a program improvement plan, as appropriate.

- **Inability to Exchange Data in an Automated Fashion** – Partner agencies such as the Social Security Administration, Employment Development Department, Department of Mental Health, Department of Education and others are unable to directly interface with FCS to share data pertinent to DOR's customers. Data must be sent and imported into FCS manually.
- **Inability to Provide Consistently Reliable Reports** – Various other reports (externally requested) often contain incorrect or incomplete data. For instance, individuals who complete an application for DOR services (or even simply express an interest) represent one statistic that is commonly requested (i.e., how many applications were accepted in a given period), yet there is no capacity built into FCS to track applications unless an actual case is opened.

4.1.5 Technical Satisfaction

IT support personnel (Information System Services or ISS) are responsible for the day-to-day maintenance of FCS, programming upgrades and fixes, and assisting users with questions or problems. Supporting and maintaining FCS is difficult and time consuming for a number of reasons, including:

- ISS service requests are backlogged as far back as 7 years and many requests are either never implemented or implemented after the reason for their usefulness has disappeared (e.g., repealed mandates).
- Service requests that require a change to FCS often fix the specified problem, but inadvertently "break" another piece of functionality in the system (which could result in an irreversible and irreparable system breakdown).
- FCS is, at its core, a "patchwork" of Natural code that is difficult to modify, often taking months to fix individual problems.

These are just a few of the issues that contribute to the universal sentiment that FCS is a difficult and ineffective system to maintain and use. These limitations and hindrances lead to additional technical personnel time, severe delays in the completion of service requests (if completed at all), and an inability to attract and hire new staff trained in creating or modifying FCS source code.

4.1.6 Data Input and Output

Currently, DOR staff members manually enter case-related data into FCS from hard copy forms (e.g., hard copy application data, vendor related data, case notes). This data can be incomplete, inaccurate, or redundant, causing various problems with FCS. Data residing in FCS is used to create various reports used to meet both internal and external reporting requirements.

4.1.7 Data Characteristics

Data characteristics in FCS are highly non-standardized. Perhaps the most obvious instance of this incongruence involves the vendor library. Within FCS there is a vendor repository containing names of vendors DOR has previously contracted with in some capacity. Vendor names are manually entered by counselors as needed, giving rise to the possibility that the same vendor can exist in FCS under multiple names. There is currently no standardization in place to avoid this redundancy, nor is it possible to search vendors using geographic, functional, or other key criteria. Another instance of data inconsistencies is a result of FCS's inability to be expanded to accept various consumer data. Hence, data is fragmented and overlaps between FCS and actual hardcopy files.

4.1.8 Security, Privacy and Confidentiality

Security is provided through multiple levels of software that include: a logon/password for the network (controlled by DOR system administrators); a separate logon/password for the mainframe system (controlled by DTS); Resource Access Control Facility (RACF); and ADABAS file password, firewalls, and encryption. Security within FCS is based on security models for the various screens. There are security models for query only and query/update and users have access based on individual job requirements. FCS users can also mark individual cases as "sensitive" and specify which users may have access to the cases by enumerating them in an access list.

4.1.9 Equipment Requirements

15.7% of all DOR staff have a disability and use at least one type of assistive device to both enter and extract information into and from FCS. These devices include:

- JAWS screen reader software
- Window Eyes screen reader software (not currently supported by FCS)
- Duxbury Braille Translation Software
- Ruby Openbook Scanning
- Dragon Naturally Speaking
- Note Takers
- Freedom Scientific 80 character Braille keyboard
- CCTV and SmartView (screen magnification)
- PacMATE QX400 (Braille Pocket PC computer)
- PC Concepts Specialized Keyboard
- Micro Keyboard (foot operated)

4.1.10 Software Characteristics

DOR's primary mainframe programming language is Software AG's ADABAS Natural (FCS is written in Natural). Natural is a 4GL (4th Generation Language) but similar to COBOL.

4.1.11 Internal and External Interfaces

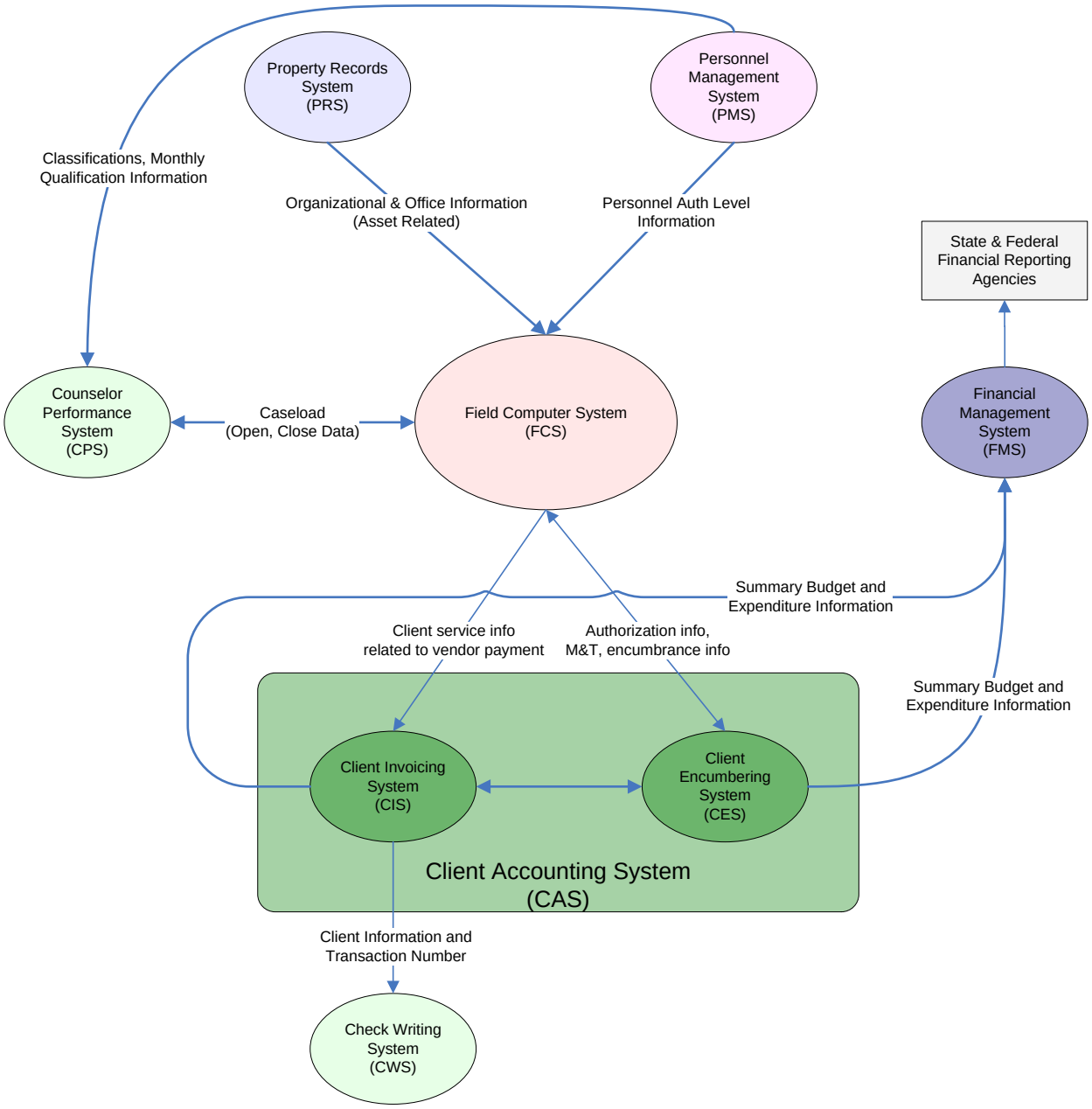
Currently, no external automated interfaces exist between FCS and other systems. Within DOR, FCS interfaces with various systems (or programs and associated databases). Currently, client data as well as employee data (authorization level, classification, etc.) are stored in a mainframe database hosted at Department of Technology Services (DTS). DOR's current solution consists of various programs that interface with one another via accessing database records associated with each program. For example, when a rehabilitation counselor attempts to approve an encumbrance of funds (an action that requires a specific approval level or clearance), FCS will query that employee's record in the Personnel Management System (PMS) section of the database, returning the employee's title and classification to determine approval authority. FCS interfaces (as described above) with the following mainframe systems:

- **Financial Management System (FMS)** – This system is used to provide detail and summary budget and expenditure information. FMS is interfaced with the Client Invoicing System to supply encumbrance and expenditure information for each client.
- **Personnel Management System (PMS)** – This system is used to maintain leave balances and manage or control personnel positions. In addition, each personnel record contains information that indicates level of authority to review post closure items such as LSOD, medical information, etc. FCS is interfaced with PMS to obtain authorization levels for various review/approval functions and thereby enable counselors with sufficient authorizations to perform those reviews/approvals.
- **Client Encumbering System (CES)** – This system is used to input information (such as client SSN, account code, amount, type of service, fiscal year – entered by a CSA after obtaining from a case note generated by an RC) to create an initial encumbrance for an expenditure. This encumbrance information is sent to FCS that can then be viewed in the authorization summary screen. The RC can use this information to monitor the services/equipment purchase originally authorized.
- **Client Invoicing System (CIS)** – This system interfaces with FCS via the Client Master File (contains client information such as name, SSN, status, Counselor ID and application information). DOR's accounting division schedules payments to vendors that provided client services or goods by verifying through FCS that the client was eligible and that an encumbrance related to the invoice had previously occurred.

- **Counselor Performance System (CPS)** – CPS is used to collect client caseload data paired with assigned case carrier (SVRC – Senior Vocational Rehabilitation Counselor) data. It provides reports of Current Open Caseload, Counselor Production History (IPE's written, timeliness of determinations, month-to-date and YTD status movement), and Case Movement (counts of movements between certain consumer statuses) at the following levels: Statewide, District, Supervisor, Caseload, and Counselor. CPS also interfaces with PMS to initially acquire counselor information based on job classification.
- **Property Records System (PRS)** – This system is used to track assets initially valued at $1,000 or more for inventory purposes.
- **Check Writing System (CWS)** – This system is used to create bank drafts related to maintenance and transportation (M&T) transactions (it also serves other Department needs unrelated to FCS). CIS passes client information and transaction number (related to a specific authorization) to CWS in order to create the aforementioned bank drafts.

The figure below provides a graphical representation of the relationships between these mainframe systems.

Figure 1. Internal FCS Interfaces



4.1.12 Personnel Requirements

As detailed in the Economic Analysis Worksheets, 13 FTE's provide FCS maintenance and support. Of these, four staff are dedicated entirely to creating ad-hoc reports (business requests). Various other positions (business and technical) that support the two divisions mentioned earlier in this section (EPS and SSD) are shown in the table below.

Table 8. Job Classification Information for Positions Related to FCS

Classification	Job Objectives	Number of Authorized Positions
District Administrator (DA)/Rehab Administrator II	Under Asst. Deputy Director, DA's are responsible for managing VR program within his/her district. DA responsibilities include managing various district personnel, managing case service and administrative budgets, and other duties.	**16**
Rehabilitation Specialist (RS)	Under DA supervision, RS's provide support for contract management and negotiations, community relations, etc. The RS coordinates medical services and district training, and evaluates and monitors program and fiscal compliance.	**19**
Information Services Technician (IST)	Under supervision of OSS II/III, IST's install, maintain and provide district-wide user support for multifunction information processing systems (mainframe and PC applications).	**19**
Office Services Supervisor II and III (OSS II & III)	OSS II and III positions are responsible for interpreting DOR policy and setting up procedures for compliance in areas relating to Accounting, Personnel, Medical Services, Business Services, case service authorizing, statistical reporting, and also communicate with vendors to facilitate authorizing and invoicing.	**29**
Medical Consultant (MC)	Under supervision of DA, MC's provide assistance in regards to Medical Services (i.e., medical information interpretation and advice, record medical findings in case note, identify medical training needs, etc.) to the counseling staff and management.	**9**
Vocational Psychologist (VP)	Under supervision of DA, VP's administer, score, and interpret various vocational/psychological tests, and provide interpretation of existing psychological/educational/vocational records. The VP also provides consultation and training for district staff concerning psychological testing and issues.	**12**
Account Clerk I and II	Under supervision of OSS II/III, clerks serve various functions depending on primary assignment (e.g., revolving fund, SE/VR-WAP) including providing support for the district accounting unit (compile, investigate, and verify numerical or financial information), and preparing and processing Supported Employment (SE/VR-WAP) invoices.	**34**
Office Services Supervisor, Office Technician, Office Assistant	Office technicians and assistants perform various tasks including administrative tasks (maintaining control of district administrative equipment inventory, maintaining district vendor data record, coordinating district case transfers, and processing statistical information.	**124**
Rehabilitation Supervisor (RS)	Under DA supervision, RS's supervise RC's and perform program support functions such as contract negotiations and client appeals. The RS also directs and manages counseling unit workloads.	**127**

Senior Vocational Rehabilitation Counselor (RC)	Determines vocational rehabilitation potential and eligibility for services. Counsels with, plans, arranges for and coordinates the VR of persons with physical and mental disabilities. Analyzes and interprets medical and psychological and vocational information for the purpose of developing a rehabilitation plan. Develops timely and necessary case documentation and serves as liaison to employers wanting to hire individuals with disabilities.	**815**
Case Service Supervisor (CSS)	Under supervision of OSS II/III, CSS's organize and direct a unit of CSA's and CSS's performing specialized duties relating to the case service delivery system (e.g., monitor and evaluate completion of case work functions, process case service invoices and authorizations).	**73**
Case Service Assistant (CSA)	Under supervision of CSS, CSA's provide clerical support to case carriers by performing specialized duties related to the rehabilitation process (e.g., document client information in FCS, review reminder/approval screens and complete case work, prepare tickler system for implementation of future client services, and prepare forms and correspondences)	**221**

4.1.13 System Documentation

FCS documentation consists of a number of online "pop-up" screens that may or may not be specific to the area in which they are accessed. Many screens in FCS have no associated help screens at all; others have help screens that are cryptically written and are of no use. A FCS manual was developed in 1990 to assist staff in the use of FCS; however, as changes were implemented to the system, additional methods to access screens were created. These changes were not documented in the manual rendering it incomplete. Attempts were made to update the manual but those updates could not keep up with the many changes that FCS has experienced. For example, there is no unified method within FCS for making selections. Some fields require an "X", others require a "Y" and still others require a number. This inconsistency in programming means that each field would require documentation and instruction.

4.1.14 Failures of the Current System

The current system imposes a number of business functional and technical limitations. The following list summarizes those failures that have been described above:

- Lack of integration with external program/entities.
- Inaccessibility for staff with disabilities (inoperable or only marginally operable with assistive technology).
- Inefficient case management and processing flow as FCS does not provide useful case management features such as integrated workflow to facilitate case activity and remind counselors that various actions need to be taken at specific times.
- Non-standardized and non-contiguous client data (contained partially in FCS, partially in hard copy case files).
- Difficulty to extend functionality.

- Poor system documentation with hard copy and online documentation of limited use.
- Limited reporting capabilities.
- Contribution to employee inefficiency (e.g., requires re-entry of data in multiple screens, loss of data due to time out.)
- Poor data quality as incorrect data is commonly entered to “force” FCS to progress to a desired screen or outcome.
- Need for various patches and scripts to obtain basic functionality (most scripts and patches take weeks, months or years to complete).

4.2 Technical Environment

This section provides a detailed description of the technical environment impacting DOR's systems and infrastructure, including its expected operational life, system interfaces, State and DOR policies, and financial, legal and public policy constraints. A description of the technical resources and staffing required to support the system is also provided.

4.2.1 Expected Operational Life

DOR's FCS is technically and functionally obsolete. Continual customization and modification of FCS to meet current and future business needs is not feasible from a financial or technical aspect.

4.2.2 External System(s) Interface(s)

FCS does not have any automated external system interfaces. However, DOR desires the capability for the new ERS to interface with many public and private entities as described in Section 5.1.7.

4.2.3 State-Level Information Processing Policies

According to the State Administration Manual for Information Management Planning[1]:

> *Each agency identifies opportunities to improve program operations through strategic uses of information technology…. Each agency establishes and maintains an information technology* ***infrastructure that supports the accomplishment of agency business strategies*** *[emphasis added], is responsive to agency information requirements, and provides a coherent architecture for agency information systems.*

As explained in Section 3.2, the FCS application and infrastructure does not allow DOR to meet its business and accessibility requirements, and DOR is not positioned to provide a "coherent architecture" with the current platform.

4.2.4 Financial Constraints

DOR is funded through both Federal and State revenue sources. These sources have funded the existing system infrastructure, including FCS, and will be utilized for funding of the new solution.

4.2.5 Legal and Public Policy Constraints

DOR is mandated to comply with State and Federal laws and standards, specifically Section 508 of the Rehabilitation Act of 1973, 29 U.S.C. Section 794 and as referenced in Government Code 11135.

[1] **CHAPTER 4800 sub**

CALIFORNIA CODES
GOVERNMENT CODE
SECTION **11135**-11139.8

11135. (a) No person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, color, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state.

(b) With respect to discrimination on the basis of disability, programs and activities subject to subdivision (a) shall meet the protections and prohibitions contained in Section 202 of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12132), and the federal rules and regulations adopted in implementation thereof, except that if the laws of this state prescribe stronger protections and prohibitions, the programs and activities subject to subdivision (a) shall be subject to the stronger protections and prohibitions.

(c) (1) As used in this section, "disability" means any mental or physical disability as defined in Section 12926.

(2) The Legislature finds and declares that the amendments made to this act are declarative of existing law. The Legislature further finds and declares that in enacting Senate Bill 105 of the 2001-02 Regular Session (Chapter 1102 of the Statutes of 2002), it was the intention of the Legislature to apply subdivision (d) to the California State University in the same manner that subdivisions (a), (b), and (c) of this section already applied to the California State University, notwithstanding Section 11000. In clarifying that the California State University is subject to paragraph (2) of subdivision (d), it is not the intention of the Legislature to increase the cost of developing or procuring electronic and information technology. The California State University shall, however, in determining the cost of developing or procuring electronic or information technology, consider whether technology that meets the standards applicable pursuant to paragraph (2) of subdivision (d) will reduce the long-term cost incurred by the California State University in providing access or accommodations to future users of this technology who are persons with disabilities, as required by existing law, including this section, Title II of the Americans with Disabilities Act of 1990 (42 U.S.C. Sec. 12101 and following), and Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. Sec. 794).

(d) (1) The Legislature finds and declares that the ability to utilize electronic or information technology is often an essential function for successful employment in the current work world.

(2) In order to improve accessibility of existing technology, and therefore increase the successful employment of individuals with disabilities, particularly blind and visually impaired and deaf and hard-of-hearing persons, state governmental entities, in developing, procuring, maintaining, or using electronic or information technology, either indirectly or through the use of state funds by other entities, shall comply with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. Sec. 794d), and regulations implementing that act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations.

(3) Any entity that contracts with a state or local entity subject to this section for the provision of electronic or information technology or for the provision of related services shall agree to respond to, and resolve any complaint regarding accessibility of its products or services that is brought to the attention of the entity.

4.2.6 Department Policies and Procedures Related to Information Management

DOR has instituted an Operational Recovery Plan (ORP) that defines the roles of the Central Office (CO) Information Systems Services (ISS) staff regarding Information Technology (IT) emergency planning, organization, response, and recovery policies and procedures. The plan also addresses the integration and coordination of recovery actions with other levels of government as required.

The plan identifies how the DOR will respond to events or disasters, which cause an interruption in the DOR's ability to utilize its current automated system environment. The plan specifies actions to be undertaken from preparation through recovery. The responsibilities of each division and the sections that it contains are identified in this plan.

4.2.7 Anticipated Changes in Equipment, Software, or the Operating Environment

Plans are in place to upgrade from Windows 2000 to Windows XP on most DOR desktops. Citrix (terminal services, version 1.8 to be updated to 3.0) and Exchange 5.5 systems are currently out of support and in the process of being updated to current releases. These upgrades are expected to be completed in early 2006. The current workstation environment is a mix of Windows 95, 2000, and XP operating systems, and is scheduled to be updated uniformly to Windows XP by early 2006. Network servers are scheduled to be regularly updated beginning in fiscal year 2006-2007. No other imminent changes are planned.

4.2.8 Availability of IT Personnel

Due to the obsolete nature of FCS, DOR has experienced difficulties in recruiting support personnel. Currently, many of DOR's ISS staff has limited knowledge of maintaining and upgrading FCS. This limited knowledge in turn implies hiring new staff will not improve the situation, since new staff can only be trained using existing staff knowledge of the system.

In addition, only two DOR employees know FCS well enough to navigate its various intricacies to ensure required RSA-911 reports are completed. However, one is retired and only works 2 hours per day, leaving just one other person within DOR that possesses the knowledge to compile RSA-911 reports. Without this individual, DOR would not be able to satisfy Federal RSA reporting requirements. Failure to comply could impact the State's ability to receive crucial funding.

4.3 Existing Infrastructure

4.3.1 Desktop Workstations

There are a number of different types of workstations deployed throughout the Department. All workstations are Dell PC's (including, but are not limited to G1, GX1, GX100, and GX150 models – 400 MHz to 1 GHz, 128-256 MB RAM). The majority of the Department's desktops are configured for terminal services access and with Windows 98/2000/XP as the operating system, Internet Explorer as the Web browser, and the Citrix 3.0 client that enables access to the terminal services. Applications provided through the Citrix terminal services client include Office 2000, Outlook 2000, and Passport 32, a Windows-based terminal emulation suite designed specifically for TCP/IP communication to IBM mainframe, AS/400, and UNIX applications. There are also a number of workstations configured as network clients (via a Virtual Private Network (VPN)) used by staff with assistive technology (AT). Applications on these PC's have all been loaded locally. Finally, there are also a number of Toshiba laptops with all applications loaded locally for use by field staff.

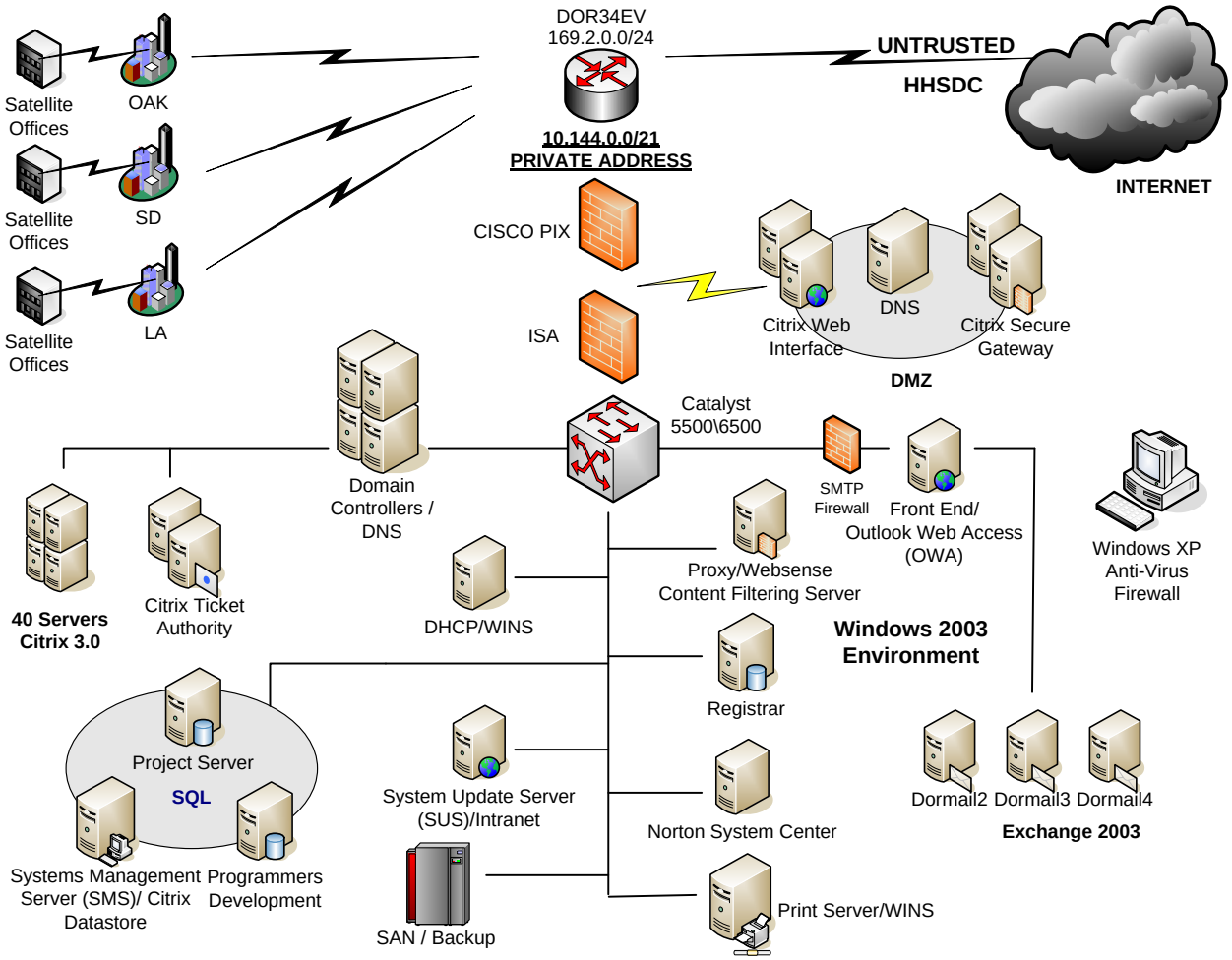
4.3.2 LAN Servers

DOR's LAN (Local Area Network) is currently comprised of a mix of Windows NT 4.0 servers and Windows 2003 servers. User authentication, file, print, and Web services are provided by Windows 2003 servers. E-mail and terminal services are provided by Windows NT 4.0 servers. Terminal services (Citrix 1.8) is the primary means for users to access their productivity applications, e-mail, and FCS while a minority of users within the Department are configured as typical network clients and use a VPN instead of Citrix. As mentioned earlier, the DOR Network support staff is in the middle of a major project that is expected to continue until early 2006, consisting of implementing Active Directory, Exchange 2003, Citrix 3.0, and a new firewall as shown in figure 2 below.

4.3.3 Network Protocols

DOR's WAN is currently hosted by DTS (formerly HHSDC) via a T3 connection to DOR's central office. There are two shared ATM connections between the Central Office (CO) and three primary hub sites (Oakland, San Diego, and East Los Angeles).

Figure 2. DOR WAN Network Overview



The bandwidth between hub sites varies between 2 MB/s and 5 MB/s. Downstream connections to satellite offices are frame relay and support bandwidths that vary between 56 Kbps and 512 Kbps.

4.3.4 Application Development Software

Other than Natural, DOR currently does not use any application development software. New applications and changes to the current FCS infrastructure are implemented through use of four databases, listed in section 4.3.8, Application Development Methodology.

4.3.5 Personal Productivity Software

DOR is standardized on the Microsoft Office 2000 suite of office automation products, including the standard modules Word, Excel, and PowerPoint. DOR uses Internet Explorer 6.0 as the standard browser for the Internet.

4.3.6 Operating System Software

DOR currently uses the Microsoft Windows 2000 operating system (a minority of systems utilize Windows XP and Windows 98). Plans to upgrade to Windows XP exist, but are not finalized as of the creation of this FSR.

4.3.7 Database Management System

The current environment is a mainframe system that stores information on each VR consumer who has requested assistance. This system resides at DTS and uses ADABAS as its database management system with most of the programming coded in Natural. The system runs under Operating System/Multiple Virtual Storage (OS/MVS) and utilizes Customer Information Control System (CICS) as a teleprocessing monitor.

4.3.8 Application Development Methodology

DOR supports its application development (developing and testing FCS changes) across four databases, as follows:

- **Production**: This is the database that contains all of the "real" data that is entered by the users of DOR's computer systems. This data includes all client information that is required by DOR. Other data such as property records, BEP (Business Enterprise Program) records, accounting records, and personnel records are also stored in this database.
- **Acceptance**: The Acceptance database is where the computer users test and accept various system changes before ISS applies those changes to production. The layout of this database basically mirrors production.
- **Test**: The Test database is used to test various changes to DOR's computer systems, field, file, or table updates. The layout of this database basically mirrors production.
- **Development**: This database is used by ISS programmers and the ISS Database Administration Group for developing new systems and/or adding new database files, fields, and tables. The layout of this database basically mirrors production.

4.3.9 Project Management Methodology

DOR has adopted as its standard a Project Management Methodology that is consistent with the State's Project Management Methodology, as described in Section 200 of the Statewide Information Management Manual (SIMM). Additionally, DOR has established priorities for new projects as identified in its Agency Information Management Strategy (AIMS) plan. The Information System Services (ISS) unit within DOR has a group of analysts that manage simple to complex projects on an ongoing basis. The ERS management team will ensure that the selected vendor's approach will address the activities recommended in the SIMM. More information is provided in the Project Management Plan section of this FSR (Section 6: Project Management Plan.)

5.0 Proposed Solution

This section identifies the alternative that best satisfies the objectives and functional requirements as outlined in Section 3 of this FSR. Alternatives considered and details on all facets of the proposed solution are described in the sub-sections outlined below.

Table 9. Proposed Solution Sub-Sections

5.1 Solution Description
5.1.1 Hardware
5.1.2 Software
5.1.3 Technical Platform
5.1.4 Development Approach
5.1.5 Integration Issues
5.1.6 Procurement Approach
5.1.7 Technical Interfaces
5.1.8 Testing Plan
5.1.9 Resource Requirements
5.1.10 Training Plan
5.1.11 Ongoing Maintenance
5.1.12 Information Security
5.1.13 Confidentiality
5.1.14 Impact on End-Users
5.1.15 Impact on Existing System
5.1.16 Consistency with Overall Strategies
5.1.17 Impact on Current Infrastructure
5.1.18 Impact on Data Centers
5.1.19 Backup and Operational Recovery
5.1.20 Public Access
5.1.21 Costs and Benefits
5.1.22 Sources of Funding
5.2 Rationale for Selection
5.3 Other Alternatives Considered
5.3.1 Alternatives Descriptions 5.3.2 Evaluation of Alternatives

5.1 Solution Description

The solution proposed for the Department of Rehabilitation (DOR) Electronic Records System (ERS) is a Commercial-Off-The-Shelf (COTS) system with configuration and minor customization. Research has identified vendor products that can provide core case management functionality that would then be augmented through additional functionality as well as customized forms and reports specific to DOR's business requirements. DOR expects the vendors of these case management products to partner with a system integrator to provide a complete solution. The combination of the COTS vendor and system integrator – the "solution vendor" – will provide a best value solution to the State by meeting the business and technical requirements as specified earlier in the FSR.

Proposed Solution Market Research

In an effort to determine the availability of solutions that could meet the needs of the ERS project, the project team conducted a combination of primary and secondary research to determine what is available in the marketplace. Technical and functional information and rough cost estimates were produced as a result of market research efforts to help drive the decision for the proposed COTS solution. Research activities included:

- Soliciting vendor input through a comprehensive Request for Information (RFI) process. A detailed RFI response was received from six vendors comprising major systems integrators and case management system software vendors. Follow-up discussions with a few of these vendors were performed to clarify the information received.

  A list of the Business Functional Requirements (Section 3.4.2) and Infrastructure Requirements (Section 3.4.3) were provided in the RFI, and four of the six vendors responded with the ability to meet these requirements with core COTS software, also specifying what requirements were to be met with customization or 3rd party products. A summary of the information is provided below.

Table 10. COTS Vendor Overview

Firm/Product	Architecture	% Customization Required
Alliance/Aware	Microsoft IIS and SQL Server based	15%
Curam/Curam	J2EE/XML/Web Service based	10%
Libera/System 7	Microsoft .NET based. Requires MS Exchange Server and IE 5.5	15%
Software AG/CRISWeb	Microsoft IIS and SQL Server based	15%

  These RFI results supported the finding that a very large majority of business requirements could be implemented using core COTS software components. The project team further limited the risk of solution customization through identifying certain requirements as "desirable," where solution vendors need not meet the requirement if it is not provided within its core solution offering.

- Assessing other state's efforts in vocational rehabilitation case management. DOR developed and distributed a survey to other states to understand where they were positioned in regards to vocational rehabilitation systems. Twenty-five states provided responses to the survey. DOR and Gartner personnel reviewed states that had implemented new systems to understand the solutions provided as well as related improvement in efficiency and other metrics. Additionally, DOR contacted a few state rehabilitation officials (e.g., Texas, Delaware) to understand their project solutions and implementations.
- Consulting with systems implementation experts within Gartner regarding case management systems and enterprise system replacement projects.

Proposed Solution Workflow

The basic workflow supported by ERS is anticipated to be as follows:

- An interested party requests information on services provided by DOR and the interested party can provide pre-application information.
- Local DOR staff schedules an interview or an orientation directly with the interested party.
- The counselor meets with interested party to further describe DOR services.
- The interested party decides to apply for DOR services and submits some of the pre-application information to begin the application process.
- If the interested party wants to apply, the counselor opens the case in ERS.
- Based on the counselor's determination of the applicant's eligibility, ERS will generate the date of the eligibility determination and an eligibility certification letter will be generated by ERS for the interested party.
- Within ERS there will be an automated method of determining the level of significance of disability and generating required letters and documents based on the determination.
- The counselor may submit an authorization via ERS for any goods or services required for the consumer.
- The counselor inputs the Individual Plan for Employment (IPE) and sends the IPE electronically to the consumer for further input.
- The IPE is then integrated into the electronic case file.
- The counselor searches the vendor list within ERS to determine appropriate vendors for the consumer's needs.
- DOR staff issues checks or bank drafts via ERS depending on the needs of the consumer.
- The counselor tracks consumer progress against IPE tasks within ERS.
- The vendors electronically submit progress reports and invoices for goods or services.

- Vendor invoices are matched to authorizations in ERS to facilitate payment for products and services.
- The counselor ensures that a consumer finds an appropriate job placement and the counselor tracks the consumer's progress within ERS.
- The counselor closes cases in ERS as appropriate.
- Standard case management reports and criteria driven business reports are generated via ERS.

The proposed solution provides DOR with all the benefits of a COTS system, which include best practices gleaned from the COTS vendor customer base that are included in the functionality of the product, favorable support and maintenance agreements, and a lower total cost of ownership.

Several vendors in the market can provide the required functionality, greatly increasing the chances of implementing a proven, cost-effective application for DOR. Research identified several vendors that offered integrated solutions tying multiple functions together to create workflow efficiencies.

In terms of functionality, major DOR vocational rehabilitation (VR) business processes will be automated through the implementation of the proposed solution. This solution enables DOR to connect all employees in the organization and provides a central data repository that will benefit all DOR internal and external stakeholders. Based on market research, an estimated 80 percent of DOR's requirements can be provided through a COTS solution. Modification of the solution to meet specific needs can be achieved through custom-defined fields and other application configuration and modification tools native to the COTS solutions in the marketplace.

DOR will be faced with a significant transition from a legacy mainframe environment to a modern, flexible application environment. Undoubtedly there will be extensive changes to business processes to take advantage of best practice functionality native to a COTS solution. DOR will rely on a technical architecture consultant and the solution vendor to provide DOR with the necessary expertise to make these transitions possible. A technical architect will be used to ensure well-developed technical requirements, expert evaluation of vendor technical proposals, and knowledgeable architectural review and decision-making during system implementation. To support changes in business processes, DOR will select a solution vendor proposing to improve the efficiency of processes by implementing a proven COTS solution that will automate current manual processes and help streamline existing work processes. DOR is currently conducting business process analysis activities that will be used to help a vendor understand where their solution can be most effective. Upon completion, the results of the BPA will be submitted to DOF as an addendum to this FSR.

A thorough implementation plan is an essential element of this alternative as DOR aims to minimize costs, minimize disruption to current operations, maximize training and

familiarity with the new system environment, and mitigate technological risk. A comprehensive project plan can be found in Section 6, Project Management Plan.

Conceptual Model of the Proposed Solution

To provide a graphical depiction of the proposed solution, the conceptual model discussed in Section 3.4.1 is presented again in the figure on the following page. The model depicts the components and relationships within the new system, and can be used during the procurement of the proposed solution to communicate DOR needs to the vendor community. The actual application architecture will be defined by vendors based on the detailed requirements developed during the procurement phase. The conceptual model comprises three layers, which are described briefly below.

Interface Layer

The Interface Layer depicts the methods that are used to exchange information with users and stakeholders, which primarily comprise DOR staff, consumers and participants, and external agencies and other stakeholders. These parties will provide and access data using a variety of methods, including online transactions, in person, by mail, by phone and by fax. The new system should enable DOR to conduct transactions effectively, regardless of the method used to exchange information.

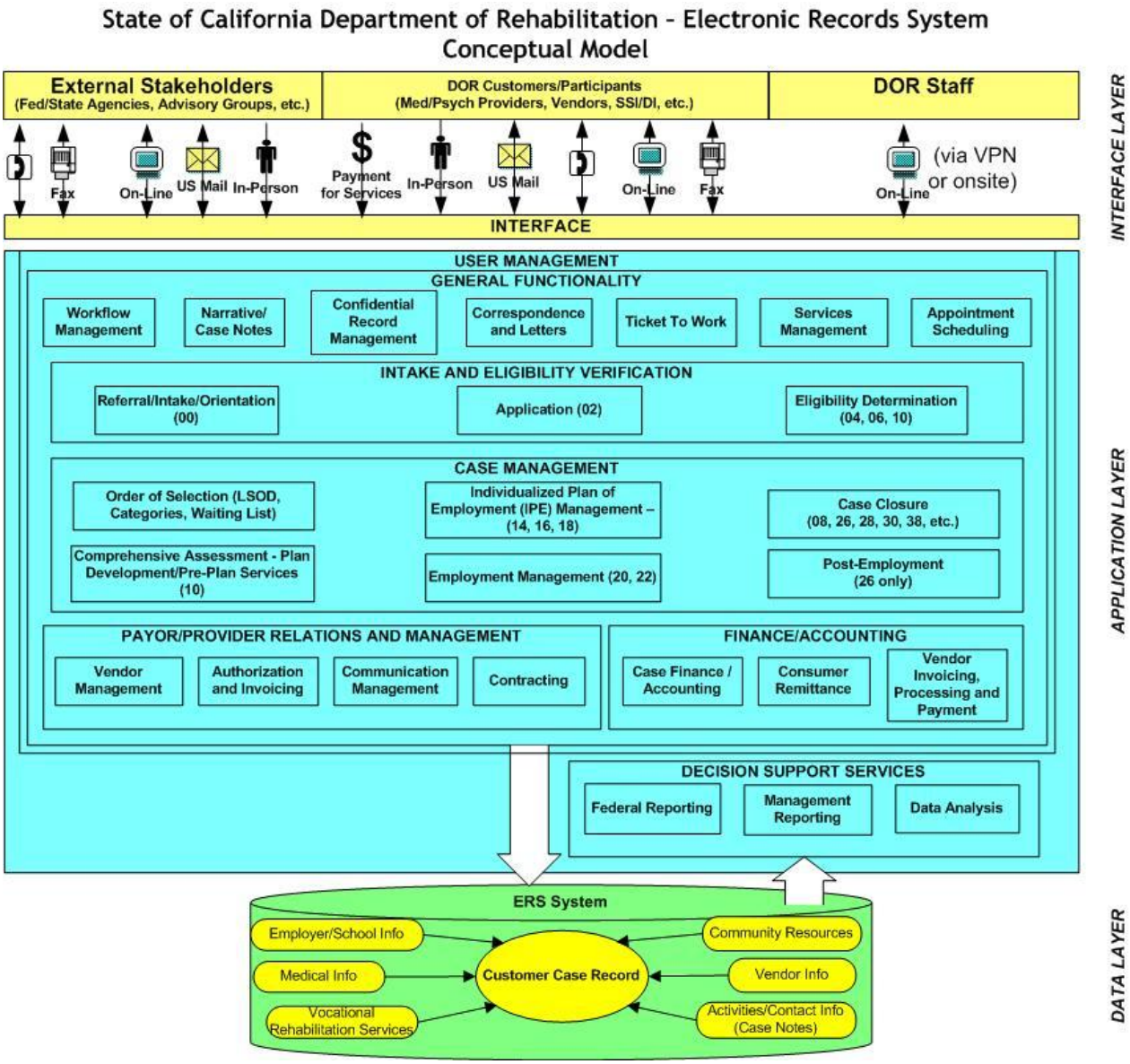
Application Layer

The conceptual model includes the integration of several COTS application components into a single system. The core application functions that fall under intake and eligibility verification, case management, payor/provider relations and management, and finance/accounting will be tightly integrated with general functionality (e.g., workflow management, correspondence management, appointment scheduling) and reporting and data analysis.

Data Layer

The Data Layer of the proposed solution is an integrated database of all consumer and case information, events and decisions, vendor and financial information, and other data. Together with the fully integrated Interface and Application Layers, the Data Layer will enable DOR to help ensure that accurate information is being provided to DOR staff and for required reporting needs. It will diminish duplicate processing and resultant data integrity issues, as data will be well-defined, stored in a single location and available to all in accordance with security controls. This Data Layer will represent the most accurate and timely information available to all authorized users.

Figure 3. Electronic Records System Conceptual Model

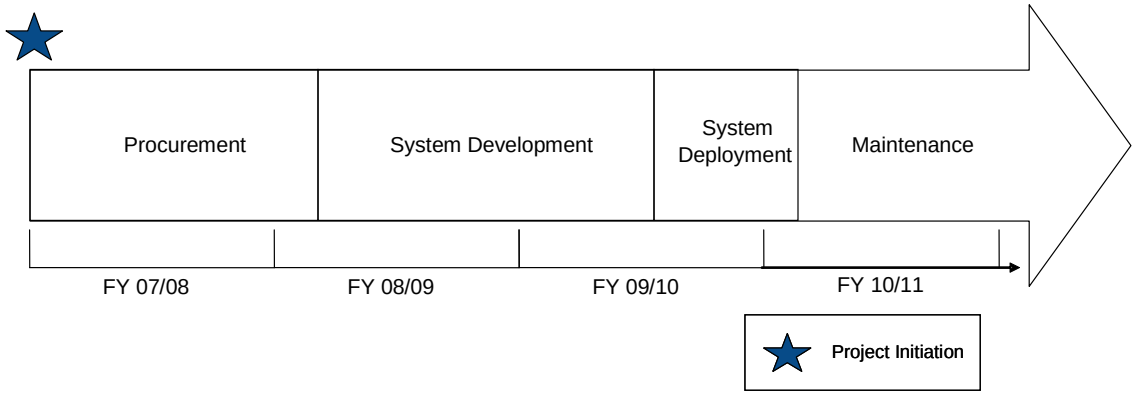


Source: Gartner, June 2005

DOR Implementation Approach

The DOR ERS project is scheduled to commence in July 2007 and finish in August 2010. Beginning with selection of an external vendor to assist with the procurement activities and development of the Request for Proposal (RFP) for the ERS implementation, the project is estimated to achieve final acceptance by August 2010.

Figure 4. Implementation Timeline



To adhere to best project management practices, the project has been divided up into phases and each has defined objectives, deliverables and resource requirements. Please refer to the following table for an overview of the major phases that comprise the DOR project.

Table 11. Proposed Project Phases

Phase	Description
1	■ RFP Development and Vendor Selection
2	■ Design, Development and System Testing
3	■ System Deployment

Each phase of the ERS project is discussed in detail in Section 6.5.3, Project Phasing, of the Project Management Plan.

5.1.1 Hardware

DOR will leverage as much of the existing current technical infrastructure as possible to support the new ERS application. The selected vendor will propose the specific hardware configuration required to support their proposed solution. The following table summarizes the estimated required hardware to support ERS.

Table 12. Required Hardware

Server Type	Location	Quantity
Production		
Application	State Data Center	1
Web	State Data Center	1
Database	State Data Center	1
Reporting	State Data Center	1
Testing/Training		
Application	DOR Central Office	1
Web	DOR Central Office	1
Database	DOR Central Office	1
Reporting	DOR Central Office	1
Client		
PC's	DOR Offices	1 per user
Printers	DOR Offices	TBD

5.1.1.1 Production Environment

The ERS production environment will require four servers to be procured through the State Data Center. The first server will house the ERS application, the second server will be utilized as a web server, the third server will be the database server and the fourth server will be a reporting server. All four servers will be housed and maintained by the State Data Center.

5.1.1.2 Testing/Training Environment

The ERS testing/training environment will require four servers to be procured. The first server will house the ERS application, the second server will be utilized as a web server, the third server will be the database server and the fourth server will be a reporting server. All four servers will be housed at DOR Central Office, and maintained by the solution vendor with support from DOR ISS staff.

5.1.1.3 Desktops

The desktops required for the proposed solution will be limited to the desktops that are already part of the DOR infrastructure. Existing printers (such as check printers at each district office) will be leveraged during implementation of the new ERS solution.

Additional hardware components, such as communications enhancements and firewalls, are not required for the proposed solution.

5.1.2 Software

Software for the proposed solution consists of application development tools, the COTS solution as a starting point for system design and development, and RDBMS software.

- **Application Development** – The vendor chosen to develop the proposed solution will define the development environment and specific products and programming languages used for configuration and any modification of the ERS. Wherever possible, the vendor will be asked to conform to DOR's technical and development standards.

  These shall be industry standards (e.g., J2EE, .NET) sufficient to support an enterprise application with up to many hundreds of concurrent users. Relevant development experience will be a significant determining factor in the selection of the vendor solution.

- **COTS Solution** – The marketplace analysis has shown there are several potential COTS solutions that will provide a robust case management system to meet DOR's needs. Vendors have been identified that have case management products already deployed to other public sector clients.

  The proposed solution will begin with a base case management system developed for use in a large, distributed office environment. DOR's goal is to minimize modifications to the core case management module(s). This will help reduce costs, risk, and time for implementation and make it easier for DOR to deploy product upgrades. Specifics about the solution will be determined by the selected vendor, under the constraint of the functional and technical requirements defined by DOR.

- **Database Software** – Providers offer products on both Oracle and SQL Server database platforms. DOR's ADABAS case-related files will be cleansed and converted to the new RDBMS environment.

- **Other Software** – DOR does not anticipate additional software requirements at this time; however, the proposed solution may introduce additional software components into the DOR environment (e.g., report writer software).

For additional detail on the software to be purchased, see the Economic Analysis Worksheets (Section 8).

5.1.3 Technical Platform

The proposed solution's database will be deployed within the server environment existing at the State Data Center (Department of Technology Services). A description of the DOR technical infrastructure is provided in Section 4, Baseline Analysis.

5.1.4 Development Approach

The DOR solution will follow a phased approach to mitigate risk and provide a structured method for configuration and minor customization of the new system. Please refer to Phase 3 in Section 6.5.3, Project Phasing for a description of the development approach.

5.1.5 Integration Issues

DOR realizes the importance and criticality of integrating the new ERS solution into its technical environment. As such, it has already begun to focus on the key integration areas, which are described below.

5.1.5.1 Applications

Administrative and approval rights are currently determined by the Personnel Management System (PMS), but this functionality will be encompassed within ERS.

Currently the linkage between services authorization and invoice information is captured manually in two applications, Field Computer System (FCS) and the Client Accounting System (CAS). Payment of the invoices is now performed in the Financial Management System (FMS). ERS will capture both services authorization information and invoice information and appropriately associate them to one another. There will be a required two-way interface between ERS and the FMS. ERS will send services authorization information and invoice information to FMS, and ERS will receive payment information from FMS.

5.1.5.2 Network

DOR currently uses Citrix to deploy a virtual desktop environment to all staff.

5.1.6 Procurement Approach

DOR will use existing procurement vehicles that allow the Department to procure services in the most effective and efficient ways available. The following is an overview of these vehicles:

- CMAS for selection of an independent contractor to define procurement specifications and support procurement efforts. This vendor will also perform technical architectural design activities.
- CMAS for selection of an independent contractor for IV&V/project oversight.
- Traditional RFP procurement for the selection of the solution vendor. Through this process, DOR will evaluate written proposals and live vendor demonstrations. DOR will also use the live vendor demonstrations to evaluate the accessibility of each vendor's proposed solution. The DOR ERS evaluation team will be able to select among the proposed solutions according to pre-defined selection criteria. DOR will then enter into a contract with the vendor whose solution best fits the selection criteria.

Section 5.1.9.1, External Resources, outlines the required external resources and the rationale behind what services will be procured.

5.1.7 Technical Interfaces

The project team has identified the following interfaces for the new system. The internal interfaces to the Financial Management System (FMS) and Property Record System (PRS) will ensure the new system continues to link with the remaining necessary mainframe systems currently interfacing with FCS. External interfaces will facilitate data exchange between DOR counselors and partner agencies that help facilitate the provision of services to DOR clients. The requirements related to these interfaces will be defined as part of the ERS RFP development process.

Table 13. Technical Interfaces

Internal	External
Financial Management System (FMS) – mandatory	Employment Development Department (EDD)
Property Record System (PRS) – mandatory	CalJOBS system
	Disability Insurance Office
	Social Security Administration (SSA)

The new system, using industry standard technologies, will be flexible enough to interface to additional interfaces that may be defined in the future including to One Stop centers, Regional Centers, the Immigration and Naturalization Service, Department of Social Services, Department of Mental Health, Department of Education and Department of Motor Vehicles.

5.1.8 Testing Plan

DOR will require the vendor to propose, plan, execute, and complete unit, system, and integration testing during development and deployment. System testing will include load and performance testing to ensure that the implemented system can meet data volume and concurrent user requirements. Integration testing will be performed as new modules are developed and readied for deployment. Acceptance testing plans will be developed by the State project manager and executed by State staff before official acceptance of the system from the vendor.

5.1.9 Resource Requirements

The proposed solution requires redirection of current IT staff, plus skills that will require assistance from contractors. Costs for all of the proposed resource requirements are detailed in the Economic Analysis Worksheets (Section 8).

5.1.9.1 External Resources

Contractor resource requirements include:

- A procurement assistance vendor to define procurement specifications and support procurement efforts. DOR does not possess the experience procuring an

enterprise-wide COTS solution, so it has decided to hire a vendor with the requisite procurement experience.

- A project management vendor to manage State project resources and work directly with the solution vendor project manager. The project management vendor will ensure that the solution vendor is adhering to the project workplan and meeting its contractual obligations. DOR does not have the skilled, experienced project management resources to support this crucial need. There are many experienced PMI-certified project managers in the vendor marketplace to fill this position.
- Project oversight and IV&V vendors to provide oversight of the management, design, configuration, and deployment of the ERS solution.
- An external service provider (solution vendor) to provide services to deliver the ERS solution including requirements validation, solution design, configuration, data conversion, testing, training, deployment, and project management.
- Technical architecture design assistance to support DOR's installation of new hardware and software technologies that are vastly different than what is currently in place in the mainframe environment.

A summary of the external skills required for the proposed solution is listed below. Refer to the Economic Assistance Worksheets (Section 8) for cost information.

Table 14. Required External Skills

External Skills Required	
Procurement Assistance/Technical Architecture	Solution Vendor Implementation Services
Independent Project Oversight	Technical Architecture Assistance
Independent Verification and Validation	

5.1.9.2 Internal Resources

The following internal staffing resources (noted in FTEs) are anticipated for the procurement, modification, and implementation of the proposed solution. The program positions can be filled internally by current DOR program and IT staff. Having end users directly involved in the training and change management functions will help ensure success. The table below identifies the roles that will be needed for the project. Cost details are available in the Economic Analysis Worksheets (Section 8).

Table 15. Required Internal Resources

Role	FTE Procurement	FTE Implementation
DOR Project Management Team	2	4
Business Analysts	1	5
Infrastructure / Architecture	1	1
Data Conversion	0	1
Application Configuration / Reporting	0	1
Help Desk / Support	0	1
TOTAL	4	13

Redirection of current program staff will save money, avoid organizational disruption and stabilize ongoing support efforts. Internal project management will be performed primarily by a team of DOR program and IT resources.

5.1.10 Training Plan

There are a number of components for which DOR will require the vendor to develop and execute a training and knowledge transfer plan. The following provides an overview of the technical and end user training that will be required.

5.1.10.1 Technical Training

The training plan will support education of DOR IT staff in system areas such as application configuration, component integration, database structure, and data maintenance mechanisms. This will be augmented by any additional training DOR staff needs as a result of any changes to the technical environment for which they will become responsible.

5.1.10.2 User Training

The training plan will also focus on the users of the system. The plan will address vendor development of user manuals and other training materials. The Training Officer, Business Analysts and Help Desk support personnel that are involved throughout the project will attend courses provided by the vendor to familiarize themselves with the new ERS system. These DOR employees will in turn train all end users throughout DOR on the new ERS system. End user training will be provided immediately prior to the final ERS system deployment to improve information retention. Courses will be conducted at district offices and the Central Office, and computer-based training will be leveraged for follow-up and post-implementation training.

5.1.11 Ongoing Maintenance

The proposed solution requires ongoing maintenance of the COTS application, database services, and server hardware support. WAN support will be provided by DTS, while LAN and desktop support will be provided by ISS. ISS will institute a functional analyst role that will work directly with the program staff to support ongoing

functionality of the system. Ongoing duties will be the responsibility of 10 IT staff as indicated in the table below:

Table 16. Ongoing Maintenance Resources

Role	FTE Ongoing Support
Supervisor	1
Functional Analyst	2
Infrastructure / DBA / Interface	2
Application / Configuration / Reporting	2
Help Desk / Support	3
TOTAL	**10**

The new system will require three less FTE to maintain than the current mainframe application. These FTE will be redirected to supporting the remaining mainframe applications that need updates to fulfill changing business requirements. There is a continuous backlog of change requests that will be addressed through this redirection. As these mainframe applications are replaced in the future, these staff members will be responsible for supporting these projects as well.

5.1.12 Information Security

Information stored on the Department's databases will be accessible to authorized personnel only, and the general public will not have access to DOR data directly. Any data change requests submitted by the general public via the Web will be reviewed and authorized by DOR personnel before being committed to the database. All database transactions will be logged, ensuring data accountability for the actions of any individual. Depending on the profiles established for the user community, the proposed solution would support different levels of local and statewide access. Classes of users will be established, and the user login process will manage access levels. These access levels include inquiry, additions, deletions, modifications, security maintenance (e.g., creation or update of security profiles), and system maintenance (e.g., maintenance of table-driven system parameters).

5.1.13 Confidentiality

Because of the sensitivity of DOR information, staff will be educated in confidentiality considerations and requirements. Individually identifiable information about consumers will not be shared outside DOR unless otherwise explicitly provided for through DOR policies. Consumers will be able to access their own biographic and demographic information via the Web through secured access channels. They will also be allowed to submit change requests regarding their personal information.

5.1.14 Impact on End Users

One of the challenges of the new ERS is the wide range of end users and their exposure to and comfort with technology. One of the benefits of the phased deployment

being proposed is the ability to carefully target training as needed. For example, for those end users with little exposure to technology, training will occur over phases with the first focused on basic technology tools. Having end users from the affected business units directly involved in the training and change management functions will also help ensure success.

5.1.15 Impact on Existing System

ERS will completely replace FCS, the Client Accounting System (CAS) and a limited number of ancillary systems. The current Personnel Management System (PMS) will be replaced during the 21st Century Project being developed for the State Controller's Office and all functionality that interacts with FCS will be encompassed within ERS. DOR will develop an interface between ERS and both its Financial Management System (FMS) and Property Record System (PRS).

5.1.16 Consistency with Overall Strategies

The proposed solution is consistent with DOR's Strategic Plan. The replacement of FCS is the first objective of Goal 3 – Improve Department of Rehabilitation Infrastructure. Additionally, DOR's four other strategic objectives will be facilitated using the new ERS:

- Increase the quality and quantity of employment outcomes.
- Increase the effectiveness and efficiency of vocational rehabilitation services delivery.
- Improve the work environment.
- Increase equality for persons with disabilities through systems change.

5.1.17 Impact on Current Infrastructure

The proposed solution must leverage the current infrastructure as much as possible. DOR currently uses Citrix to deploy a virtual desktop to all employees, which could potentially be impacted depending on the proposed solution.

5.1.18 Impact on Data Centers

The system will be housed and supported by DTS per agreed upon Service Level Agreements (SLA's). This will result in the removal of the old mainframe FCS application and implementation of a new distributed computing environment. DTS representatives will be included in the technical requirements development process, which will be part of the RFP process. Additionally, DTS resources will work together with the DOR and solution vendor during project development and deployment. As currently envisioned, the proposed solution will not require any augmentation of State infrastructure.

5.1.19 Backup and Operational Recovery

The application portion of the system will become part of DOR's regular Operational Recovery Planning (ORP). DTS will be responsible for normal backup and recovery

procedures. The system is not expected to be available at all times (24x7). For most case management purposes, the system will be used during normal business hours.

5.1.20 Public Access

Using defined user IDs and passwords, the application will allow consumers to access and update their biographic and demographic information. Counselors will have the opportunity to review and approve the changes before they are committed to the database.

5.1.21 Costs and Benefits

As detailed in the Economic Analysis Worksheets (Section 8):

- The total one-time cost for the purchase, design, configuration, and implementation of the proposed solution, less redirection of staff resources, is approximately $12,588,766.
- The ongoing costs for the proposed solution is approximately $707,000 annually (does not include redirection of existing staff).

As previously discussed, replacing the current FCS system with an ERS solution provides a number of significant benefits, including:

- Meets all of the major requirements and objectives for DOR in support of business operations;
- Optimizes operational efficiency through elimination of redundant processes and data entry;
- Facilitates the ability to react to Federal and business changes;
- Increases the reporting capability for executive decision making;
- Increases the ability to share information with the public and external stakeholders;
- Significantly improves consumer service capabilities; and
- Improves vendor management capabilities resulting from improved data integrity and access.

5.1.22 Sources of Funding

Existing DOR funds have supported all development and maintenance to date. DOR is capable of funding the COTS application implementation through internal redirection of staff and carryover federal fund resources. DOR is requesting federal authority in order to spend the carryover funds on the ERS project. Carryover funds may only be used for one-time projects. The following table presents the sources of funding that will be used for each fiscal year.

Table 17. Funding Sources

Source	FY07/08	FY08/09	FY09/10	FY10/11	FY11/12	TOTAL
General Fund						
Redirection (Staff)	$398,372	$1,152,538	$1,152,538	$931,177	$931,177	$4,565,802
Redirection (Existing System)				$2,130,000	$2,130,000	$4,260,000
Federal Funds	$465,640	$4,503,320	$4,915,808			$9,884,768
TOTAL	**$863,640**	**$5,655,858**	**$6,068,346**	**$3,061,177**	**$3,061,177**	**$18,709,844**

5.2 Rationale for Selection

The proposed solution, a COTS solution with configuration and minor customization conducted primarily by an outside vendor, best allows the State to meet its objectives. Specific reasons for selecting this solution include:

- **Achieves complete accessibility for people with disabilities to the Electronic Records System –** The solution allows DOR to implement a system that is fully accessible to all staff with disabilities.
- **Fully meets identified objectives and functional requirements –** The solution allows DOR to implement a system that fully meets the objectives and functional requirements identified within the FSR. At the same time, it provides the flexibility necessary to incorporate unique requirements.
- **Provides the opportunity to leverage previously developed programs and code –** The solution provides an opportunity to utilize programs and code that have been previously developed for the VR marketplace, thus lowering the cost, time, and risk necessary to develop a completely custom system.
- **Provides the necessary skilled design and development resources –** The solution allows a third-party vendor to provide needed development/integration resources that DOR cannot provide. By outsourcing to the vendor community, the State gains significant flexibility in the acquisition and placement of skilled resources to perform project activities in a timely fashion.
- **The majority of COTS solutions are on standard platforms** – Most COTS solutions are developed in standard platforms, which allow for scalability, maintainability and flexibility.

5.3 Other Alternatives Considered

In order to explore all viable options and select the best alternative for DOR to meet its requirements and objectives for the new ERS, the following four alternatives were considered:

- Alternative 1: Maintain the existing FCS system
- Alternative 2: Augment the existing FCS system
- Alternative 3: Develop a customized solution
- Alternative 4: Purchase a COTS solution (Proposed Solution)

5.3.1 Alternative Descriptions

The following descriptions include a brief overview of the alternatives, advantages and disadvantages, and recommendations.

5.3.1.1 Alternative 1: Maintain the Existing FCS

Description

Under this alternative, no action would be taken to improve or replace the current application.

Table 18. Maintain Existing FCS—Advantages and Disadvantages

Advantages	Disadvantages
■ User and technical training would be minimized as the application and hardware platform would not change. ■ No additional one-time costs are required.	■ The lack of accessibility for employees with disabilities will continue. ■ No efficiencies are achieved that could translate into improved service or reduced operating costs. ■ DOR would continue to be supported by outdated technology. ■ Enhancement and ongoing maintenance costs would remain high, with a high risk of losing the staff that can support the system.

Recommendation

Because the current solution does not provide all required functionality and is not accessible to all users, this is not a viable alternative for DOR.

5.3.1.2 Alternative 2: Augment FCS

Description

Under this alternative, developers would add all required functionality to the current solution.

Table 19. Augment FCS—Advantages and Disadvantages

Advantages	Disadvantages
■ Existing technology and skills can be leveraged. ■ User and technical training would be minimized as the application and hardware platform would not change.	■ The lack of accessibility for employees with disabilities will continue. ■ DOR would continue to be supported by outdated technology. ■ Enhancement and ongoing maintenance costs would remain high, with a high risk of losing the staff that can support the system. ■ There are minimal to no cost savings compared with implementing a new system. ■ A long time frame will be required for delivery due to the inflexibility of the current system.

Recommendation

Although additional functionality would improve the application, this alternative does not address the need for accessibility for all users. This is also not a viable alternative for DOR.

5.3.1.3 Alternative 3: Develop a Customized Solution

Description

Under this alternative, developers and contracted programmers would design and develop a new solution specifically for DOR using industry standard technologies.

Table 20. Develop Customized System—Advantages and Disadvantages

Advantages	Disadvantages
■ This would address all DOR business process needs and technical requirements. ■ DOR would have greater control of the technology decisions such as platform, language, and development tools. ■ DOR IT staff would participate in system development from the ground up, and would thus be in a better position to support the system. ■ Largely eliminates the risk of implementing modifications to a COTS solution.	■ Full customization using the build-from-scratch approach would greatly increase up-front development costs. ■ Because of the unknown factors in developing systems, there is a risk that the project timeline could significantly increase. ■ Upgrades and enhancements to the system would be performed by a relatively small set of qualified people who have experience with the system.

Recommendation

This alternative is attractive in terms of providing full functionality that is targeted specifically to address DOR's needs, while avoiding the risk of incorporating needed modifications to any selected COTS implementation. It also gives DOR greater control of the choice of industry standard technologies used.

The difficulties with this solution are mainly cost and risk. Custom-developed software tends to be more expensive compared to COTS-based software, with longer timeframes for development and testing. Also, as with any software development project, there are significant risks. These risks increase when a solution (such as a case management system) is being developed for the first time.

5.3.1.4 Alternative 4: Implement a COTS Solution

This is the proposed solution. Detailed information on this alternative, including its advantages and the market research supporting its selection as the proposed solution, can be found in Section 5.1, Solution Description.

5.3.2 Evaluation of Alternatives

The following criteria have been established to evaluate the ability for each alternative to meet DOR objectives. Following this overview is a table that applies these criteria to each alternative.

Table 21. Alternative Evaluation Criteria Definitions

Criteria	Definition	Criteria Weighting
1. Ability to provide complete accessibility to DOR staff	Would the alternative provide complete accessibility to DOR staff?	Mandatory
2. Ability to accommodate DOR business requirements	Would the alternative address the business requirements specific to DOR?	25%
3. Ability to minimize the total cost of ownership (including both one-time implementation costs and ongoing maintenance costs)	How does the solution's total cost of ownership compare to the other alternatives?	50%
4. Ability to minimize the time to implement the proposed solution	Will the solution minimize the time for successful implementation?	5%
5. Ability to minimize the risks for implementing the proposed solution	Will the new solution minimize financial, technical, operational, schedule and implementation risks?	10%
6. Optimal technical solution	Will the solution accommodate DOR technical requirements and meet DOR's needs for scalability and flexibility?	10%

5.3.3 Quantitative Analysis of Alternatives

Using the evaluation criteria specified above, a COTS solution scores higher than all alternatives. The following table presents these scores.

Table 22. Alternative Analysis Scoring

Alternative	Raw Score
Implement a COTS Solution	626
Develop a Customized Solution	558
Augment Existing FCS	340
Maintain Existing FCS	308

The detailed point distribution that the Raw Scores were derived from can be found in the table on the following page:

Table 23. Detailed Evaluation Model

Minimum Qualifications Requirements	Criterion	Alt 1 Status Quo	Alt 2 Enhance FCS	Alt 3 Custom	Alt 4 COTS
Accessibility Ability to comply with State and Federal disability accessibility laws and standards	**Pass/Fail**				
The defined solution will be able to comply with accessibility requirements	Pass/Fail	Fail	Fail	Pass	Pass
Comparative Requirements	**Weight**	**Alt 1** Status Quo	**Alt 2** Enhance FCS	**Alt 3** Custom	**Alt 4** COTS
Business Requirements Ability to accommodate DOR business requirements	**25%**				
The defined solution will be able to accommodate the stated DOR business requirements (1=low, 5=high)	25%	0	125	250	187.5
Total Cost of Ownership (TCO) Minimizes the total cost of ownership (including both one-time implementation costs and ongoing maintenance costs).	**50%**				
Overall 5-year cost (5=low, 1=high)	30%	75	75	75	225
Timing of cash flows (1=sooner, 5=later)	20%	150	100	100	50
Time Ability to minimize the time to implement the proposed solution	**5%**				
Minimizes time to benefit realization (5=short, 1=long)	5%	0	12.5	12.5	37.5
Risk Ability to mimimize the risks for implementing the proposed solution.	**10%**				
Financial Risk (5=low, 1=high)	2%	20	0	5	10
Technical Risk (5=low, 1=high)	2%	10	0	10	15
Operational Risk (5=low, 1=high)	2%	0	10	15	10
Schedule Risk (5=low, 1=high)	2%	20	0	5	10
Implementation Risk (5=low, 1=high)	2%	20	5	10	15
Technical Solution Optimal technical solution	**10%**				
Single source of data (1=low, 5=high)	1.25%	0	0	12.5	9.38
Scalable to support transactions of XXX (1=low, 5=high)	1.25%	3.13	3.13	9.38	9.38
Scalable to support databsase of XXX (1=low, 5=high)	1.25%	3.13	3.13	9.38	9.38
Manageability/simplicity (1=low, 5=high)	1.25%	3.13	3.13	9.38	9.38
Core/non-core architecture (1=low, 5=high)	1.25%	0	0	6.25	9.38
Flexibility (1=low, 5=high)	1.25%	0	0	9.38	6.25
Architectural openness (non-proprietary) (1=low, 5=high)	1.25%	3.13	3.13	9.38	6.25
Time to deliver new functionality (changes and enhancements) (5=short, 1=long)	1.25%	0	0	9.38	6.25
WEIGHTED TOTAL	**100%**	**308**	**340**	**558**	**626**

6.0 Project Management Plan

DOR recognizes that a structured approach to project management is required to ensure the successful implementation of the ERS proposed solution. The following table provides an outline of the Project Management Plan components to be described in this section.

Table 24. Project Management Plan Sub-Sections

6.1 Project Manager Qualifications
6.1.1 Solution Vendor Project Manager
6.1.2 DOR Project Management Team
6.1.3 Independent Project Oversight
6.2 Project Management Methodology
6.3 Project Organization
6.3.1 Overall Project Organization
6.3.2 Vocational Rehabilitation Services Program
6.3.3 DOR Information Services Section
6.4 Project Priorities
6.5 Project Plan
6.5.1 Project Scope
6.5.2 Project Assumptions
6.5.3 Project Phasing
6.5.4 Roles and Responsibilities
6.5.5 Project Schedule
6.6 Project Monitoring
6.7 Project Quality
6.8 Change Management
6.9 Authorization Required

6.1 Project Manager Qualifications

6.1.1 Solution Vendor Project Manager

An experienced project manager is critical to the success of any project. It is the project manager's responsibility to ensure the project comes in on time, within budget and meets functional requirements. The project manager responsible for the ERS implementation should have, at a minimum, the following qualifications:

- Previous successful experience managing IT projects of similar size, scope, and complexity;
- Demonstrated ability to apply team leadership principles;
- Completion of recognized project management training programs, including quality assurance and risk management concepts and techniques; and
- Expertise in VR or case management systems and related business environments.

DOR will procure Project Management services with a vendor that can provide a qualified Project Manager for the State as well as a supporting resource that will be responsible for maintaining, updating, and monitoring adherence to the project schedule. In addition, DOR will require the selected solution vendor to provide a project manager with these qualifications. This individual will work with the DOR Project Management Team to ensure project management experience and best practices are applied during design, development, and deployment of its proposed products and solutions. This solution vendor Project Manager will report directly to the DOR Project Management Team. Further solution vendor project manager requirements will be defined in the solution vendor RFP.

6.1.2 DOR Project Management Team

DOR will assign a full-time Project Management Team to support the effort. This team will be comprised of a Project Administrator working directly with the Project Manager, Business Lead, and IT Lead. Together this group will be responsible for managing the day-to-day activities of State project responsibilities, working with the selected solution vendor, and maintaining an open channel of communication to the Project Director and all project stakeholders.

The Project Administrator will lead this team and oversee all activities and report to the Project Director. The Project Manager will work directly with the solution vendor Project Manager(s) to resolve issues and concerns and ensure that vendor activities are progressing according to plans and schedule. The Business Lead will represent vocational rehabilitation program concerns and provide technical, functional and program knowledge. This lead will also coordinate with business area experts to ensure they are well represented during functional and process analysis, design, and testing

activities. The DOR IT Lead will provide project IT leadership and will coordinate activities that involve DOR IT staff.

6.1.3 Independent Project Oversight

DOR will engage the services of an independent consultant to ensure that the best management practices are employed and that anticipated outcomes are achieved through regular audit and oversight activities. The project oversight vendor will conduct activities including the review of project processes and deliverables, attendance at specified meetings, and development of the required Independent Project Oversight Reports that are submitted regularly to the Department, Agency and the Department of Finance as required.

6.2 Project Management Methodology

DOR has implemented a project management methodology that complies with applicable Project Management Institute (PMI) and Institute of Electrical and Electronics Engineers (IEEE) requirements. DOR will require in the RFP that the selected solution vendor's project management methodology, at a minimum, complies with these requirements. As a result, the project will adhere to the following requirements:

- Completion and acceptance of a project charter/statement of work;
- Development of comprehensive business and technical requirements;
- Development of activities/work breakdown structures;
- Clearly defined project roles and responsibilities;
- Development of a detailed project schedule, including milestones and deliverables;
- Completion of a quality assurance (QA) plan;
- Completion of a risk management plan;
- Ongoing project performance review and project plan updates;
- Comparison of planned and actual progress-to-date; and
- Completion of project closeout.

The ERS project team will work closely with the selected solution vendor to ensure the vendor consistently meets project schedule and deliverable expectations.

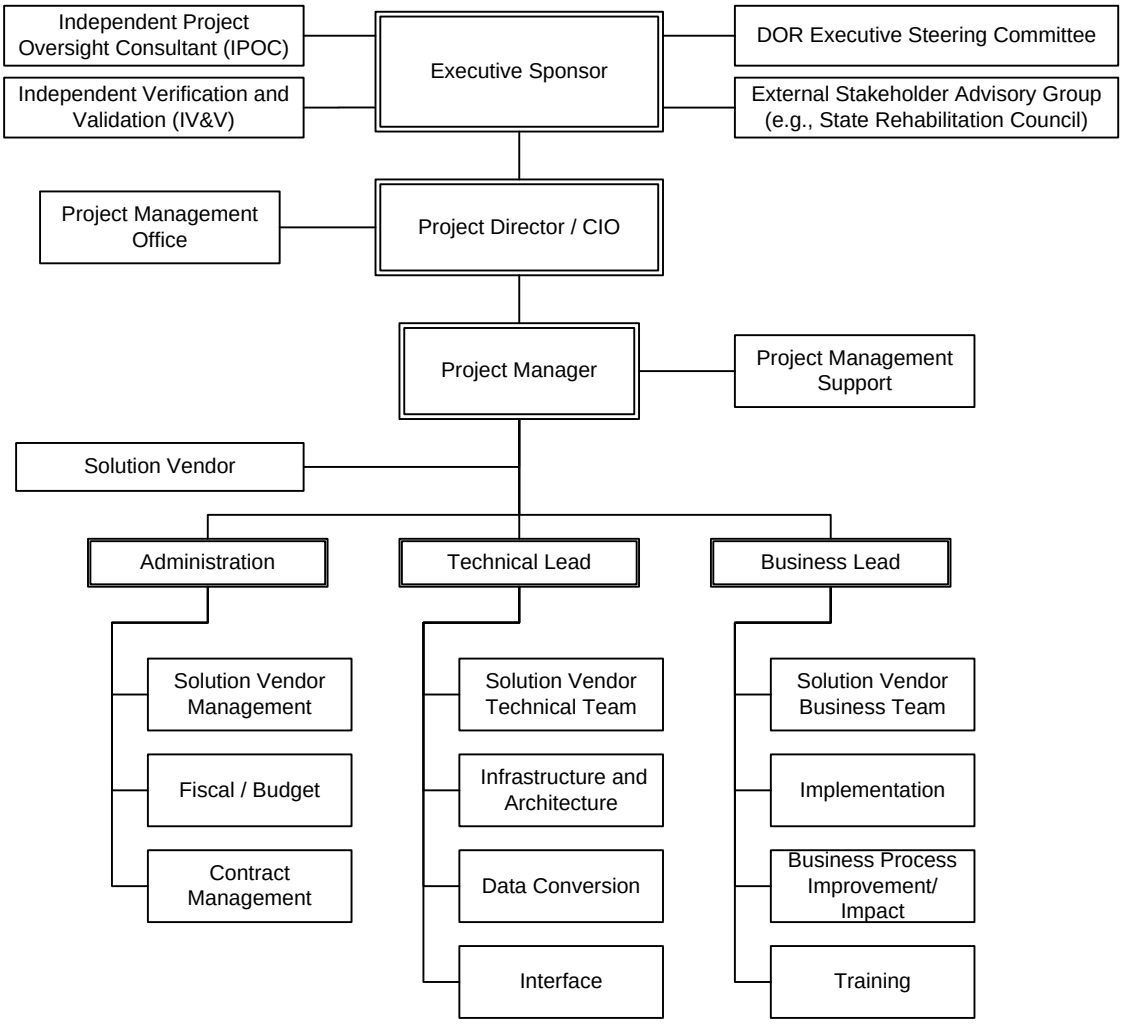
6.3 Project Organization

The ERS Project will involve numerous stakeholders in the planning, decision-making, issue resolution, implementation, tracking, and reporting processes related to project activities. The following organization charts and supporting descriptions detail roles and responsibilities and how these stakeholders will be organized to facilitate participation and effective tracking and reporting of ERS activities.

6.3.1 Overall Project Organization

The proposed project organization structure is presented in the figure below.

Figure 5. Project Organization Chart



Key roles in the project organization include:

- The **Executive Sponsor** assumes project ownership, is the highest possible level of project review at DOR and provides policy leadership and oversight as needed.
- The **DOR Executive Steering Committee** is comprised of senior members from DOR executive, business, and IT units. The Executive Steering Committee reviews and resolves project issues not resolved at lower levels, provides advice and insight into project management issues, and assures that adequate resources are made available to the project team.

- The **External Stakeholder Advisory Group** consists of key consumer groups that represent customers and other external stakeholders impacted by the ERS project. The Executive Stakeholder Advisory Group will be kept informed of project progress and asked for input as appropriate.
- **Independent Project Oversight Consultant (IPOC)** will ensure that best management practices are employed and that anticipated outcomes are reached through regular audit and oversight activities. An outside vendor will provide project oversight.
- **Independent Verification and Validation (IV&V)** will report to the Project Management Team and provide technical review and verification of project deliverables, as well as independent testing and auditing of project deliverables against requirements.
- The **Project Director / CIO** will oversee the Project Manager and have decision-making authority related to project changes and issues which cannot be resolved within the project management team.
- **Project Management Office Oversight**, a role currently within DOR, will work with the Project Director to oversee contract, budget and other project concerns.
- The **Project Manager** plans, directs, and oversees the day-to-day activities of State business, IT and administrative teams. The Project Manager also serves as the principal interface with the solution vendor.

Additional roles in the project organization include the following:

Table 25. Additional State Project Roles

Role	Function
Infrastructure and Architecture	Address both DOR and DTS data center architecture planning and infrastructure deployment for the ERS solution.
Data Conversion	Identify existing data in manual and automated systems that will need to be entered or converted to the new system and work directly with the solution vendor to ensure that all relevant and required data is effectively converted to the new ERS database.
Business Process Improvement/Impact	Work with the solution vendor to ensure DOR takes advantage of business process improvements inherent within the COTS product. Facilitate changes to processes as appropriate.
Interface	Work with the solution vendor and DOR and external agencies to design, develop, and implement required ERS internal and external interfaces.
Implementation	Provide business program expertise to support the implementation and deployment of ERS at pilot offices and the full organization.
Training	Work with the solution vendor to plan and deliver training to end users.

A further description of roles and responsibilities is provided in Section 6.5.4.

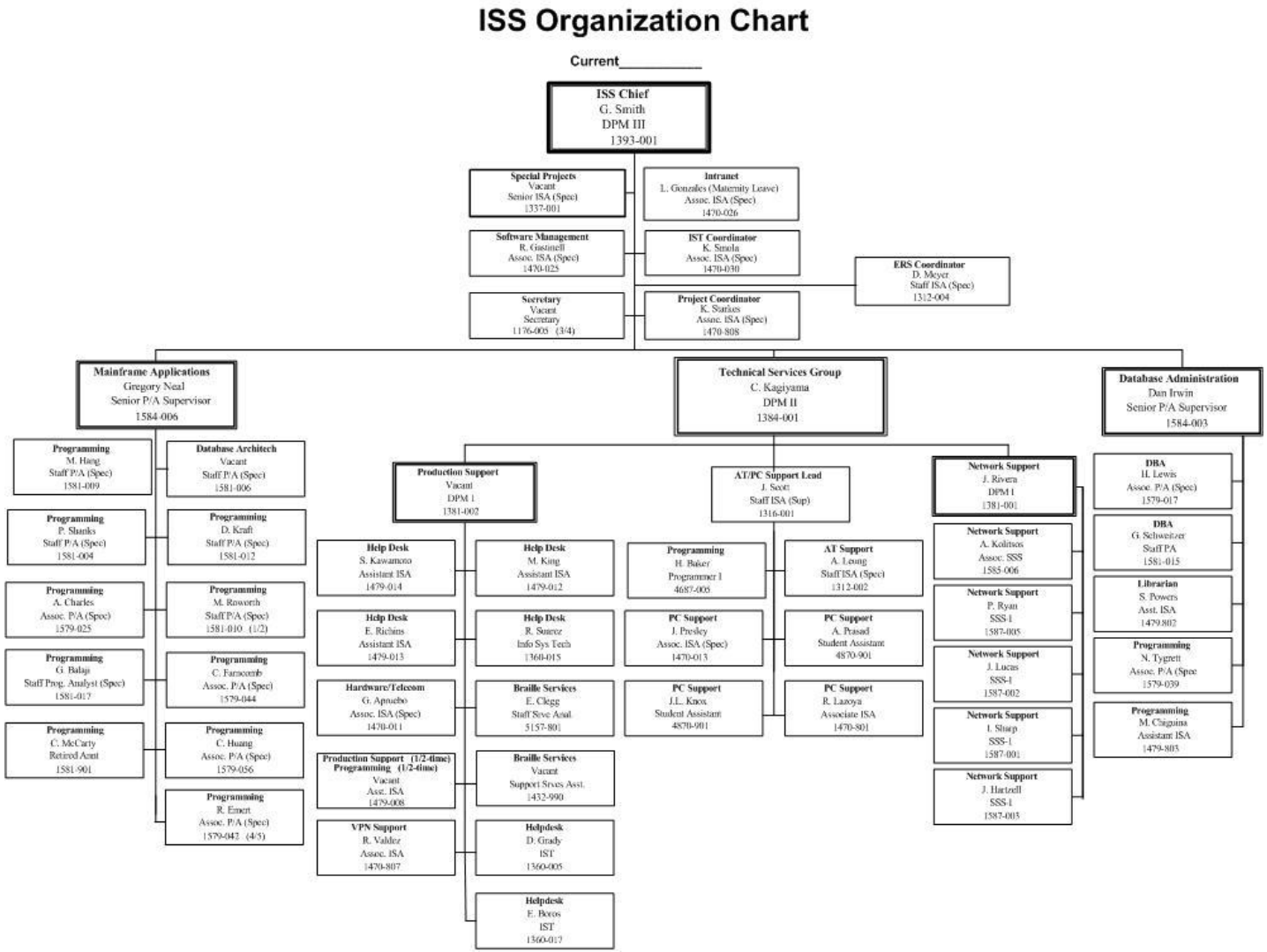
6.3.2 Vocation Rehabilitation Services Program

Staff from the Specialized Services Division (SSD) and the Employment Preparation Services (EPS) Division will be involved in all phases of the ERS project, including requirements definition, testing, training, change management, and implementation. The DOR organization chart in Section 3.1.1 depicts how these Divisions fit within the DOR organization.

6.3.3 DOR Information System Services

The Information System Services (ISS) organization will be closely involved in the ERS project. The Chief Information Officer is the Project Director to which the ERS project will report. Additionally, ISS will provide project management and team leadership to support the project full time. Other ISS staff will participate in all phases of the project as appropriate. The chart in the figure below depicts the ISS organizational structure.

Figure 6. DOR Information System Services Organization



6.4 Project Priorities

Managing a project requires balancing three factors: Resources, Scope, and Schedule. These factors are interrelated; a change in one of them causes the others to change. For the ERS project:

- *Resources* are constrained – there is a limit to the amount of additional resources that can be added to the project.
- Project *scope* is accepted – if necessary, rollout and features may be adjusted to accommodate limited resources.
- The project *schedule* is improved – this is the component most easily adjusted.

The table below summarizes these components.

Table 26. Project Priorities

Resources	Scope	Schedule
Constrained	Accepted	Improved

6.5 Project Plan

6.5.1 Project Scope

The scope of the ERS project includes the procurement, development, testing and implementation of a COTS system solution that will support VR program operations, allowing the Department to address current problems while achieving project objectives.

6.5.2 Project Assumptions

The following assumptions have been made in the development of this FSR:

- The functionality of the proposed solution must meet Accessibility requirements.
- The proposed solution includes an existing COTS solution with limited integration/customization through a competitive procurement.
- All vendor contracts and procurements will be accomplished within planned timelines.
- Existing DOR hardware (desktops, Citrix environment, network) is anticipated to be adequate for project implementation; servers at DTS will be utilized as necessitated by the selected solution vendor.
- Technical staff and end users will receive training to support the new system.
- The project will adhere to a strict schedule in which all milestones must be met.
- There will be timely review and feedback on all project deliverables by reviewers.
- Problem/issue resolution will be handled on a timely basis.

- Proactive risk management strategies will be employed to minimize risk and ensure timely completion of the project.

6.5.3 Project Phasing

The project will be implemented in the following three phases. These phases are outlined in the table below, followed by a further description of the activities in each phase.

Table 27. Overview of Project Phases

Phase	Description
1	**System Procurement** Requirements and Request for Proposal (RFP) Development ■ Development and issuance of RFP for procurement assistance support ■ Development and issuance of RFP's for project support including technical architecture assistance, project management, independent project oversight and IV&V ■ Definition of solution requirements to include functional, technical, implementation and support ■ Development and issuance of RFP for the solution vendor Vendor Selection and Project Planning ■ Assessment of solution vendor RFP responses and subsequent selection (go/no go decision based on vendor responses) ■ Assessment of project support vendor responses and subsequent selections ■ Completion of implementation project planning and scoping to outline resource and time requirements and to identify milestones ■ Initiation of technical architecture activities
2	**System Development** ■ Solution vendor project planning ■ Analysis and validation of system requirements ■ Process and solution design of the COTS software ■ Development/configuration of COTS software functionality and required interfaces ■ Planning, design, and development of data conversion activities ■ Planning and deployment of development/test/training and production environments ■ Unit and system/integration testing of the completed solution
3	**System Deployment and Training** ■ Process and solution training of DOR technical staff and end users ■ Execution of data conversion programs ■ Deployment of solution to one or more pilot DOR district offices ■ Review of pilot results and acceptance ■ Deployment of solution throughout the DOR VR program organization ■ Final acceptance

In addition to the major phases described above, DOR understands that a structured phasing of the system development and deployment (Phases 3 and 4) can reduce

project risk and ensure that core business functionality is implemented early. DOR will require in RFP responses that Bidders propose a phased implementation of functionality to meet these goals. Further detail about each project phase is provided below.

Phase 1 – System Procurement

RFP Development

The procurement process will be initiated with the solicitation and selection of a procurement contractor to help coordinate the procurement effort with DGS. DOR program staff with intimate knowledge of the business will be required on a part-time basis to assist the procurement contractor. Requirements for the new system will be gathered and the RFP document will be developed, reviewed and approved, and issued to the vendor community.

Due to the criticality of the ERS project and the time, skills and effort that will be required to complete the project successfully, DOR requires the assistance of project support consultants. In a parallel but related effort to the solution vendor RFP, DOR will develop the RFPs for these project support consultants. These vendors will provide assistance in the areas of technical architecture, project management, independent project oversight, and IV&V.

Contracting with the additional vendors will bring needed skills to the project, reducing overall project risk and freeing up DOR resources to perform their daily duties and contribute to requirements definition, data conversion efforts, software configuration exercises, and any other project components that benefit from institutional knowledge. Focusing the attention of DOR staff on the functionality and system requirements will help ensure that the deployment of this mission-critical system meets all of DOR's needs.

Vendor Selection

For each RFP issued, proposals will be reviewed and scored in accordance with defined evaluation criteria. DOR will select the vendors that best meet the RFP requirements for each effort and provide the "best value" to the State. Based on the responses to the system RFP, DOR will take the opportunity to make a go/no go decision related to the COTS market solutions. DOR wants to ensure it receives a COTS product based on this Feasibility Study. If the procurement process does not identify an appropriate COTS product that meets DOR's requirements, it will reassess the proposed solution before proceeding further.

Depending on the solution chosen, DOR may be required to provide additional, updated information to the Department of Finance before approval of the project. Upon receiving approval, preliminary DOR project planning activities will focus on resource requirements, technical and functional scoping, and time commitments for the project.

Phase 2 – System Development

Project Planning

The System Development Phase will commence with the solution vendor developing various project planning documents and a baseline project schedule. DOR staff will provide input and review for these efforts.

Requirements Analysis

Using the requirements developed in the procurement process as a starting point, the selected vendor will work with DOR staff to analyze and validate the detailed requirements that will drive the overall design and configuration of the new system and new business processes. Staff from each functional area will participate in the requirements sessions to ensure that all functional needs are addressed and included in the system and process design.

Process and Solution Design

Based on the requirements developed in the previous phase, the complete solution design will be architected by the vendor in collaboration with DOR. Phasing of the development will be decided upon at this stage with proper consideration given to desired time frames and potential project risks. Business processes will be adjusted as appropriate to ensure they take advantage of the inherent workflow and best practices within the selected COTS system in order to improve the current manner in which DOR operates.

Development and Configuration

To the extent possible, the majority of the development and configuration of the COTS software will be performed on site at DOR headquarters to ensure that knowledge transfer to DOR staff takes place and to help foster communication within the project team. This activity also encompasses development of required interfaces and reporting capabilities.

Data Conversion

Planning, design, development and execution of data conversion will be a time-intensive activity during this phase. DOR will need to determine how much history and which data elements will be converted to the new system to accommodate organizational, policy and daily business operations. A plan for how to access data not converted (e.g., paper, ancillary system) also will be defined. Development of a comprehensive database schema, normalization of the data, conversion and migration to a new RDBMS will be required. The solution vendor will be responsible for data conversion, albeit in accordance with conversion requirements established in the RFP. Database administrators, DOR business staff will be involved in this effort as required. DTS staff will be available for technical consultation.

Deployment of System Environment

The installation, configuration and deployment of all hardware and software components will be conducted during this phase. Separate environments will be deployed to support the various development, testing, training and production activities.

Testing

Testing of the new ERS system in both the development and production environments will begin at headquarters and will include unit, system/integration, load and performance testing, and any other testing procedures recommended by the solution vendor and the project oversight team. It should be noted that maintenance of the existing DOR systems would also be required until cutover to the new ERS system. Development of comprehensive test scripts, tracking and reporting of test results, and error resolution procedures are examples of the deliverables that the selected integration vendor will be required to produce.

Phase 3 – System Deployment

Pilot

System deployment will begin with training and deployment of a pilot at selected district offices to monitor the new system and address any bugs or flaws prior to full deployment. Pilot offices that vary in terms of size and location are recommended, allowing DOR to ascertain the full range of problems from small offices to large offices. Only upon acceptance of the results of the system pilot will DOR progress to a full department-wide deployment.

Training

Training of the IT staff will occur throughout the project and will require a time commitment by the future system administrators of the new solution. Business Analysts from the existing DOR staff will be trained on administration of the system to provide a bridge between the business staff and ISS. ISS staff will also be trained on the functionality and technical architecture of the new ERS system so that they can be adequately prepared to support an integrated COTS application. End-user training will be performed using training resources from the vendor and DOR, who will be responsible for development of the training materials and the overall success of the training effort. Training will not only include using the new system but will also incorporate new processes and procedures that align with use of the ERS.

Full Deployment and Acceptance

Once the system glitches have been addressed and DOR executives, management and staff are comfortable with the performance of the new system, it will be deployed to all district offices throughout the State. The project schedule for deployment will be determined by the solution vendor in concert with DOR project staff as well as district office representatives. Once the system is fully deployed throughout the organization, the new system will become “live” and will be used by all staff for daily business. The incumbent FCS and ancillary systems will be effectively “shut off” and the new application will be the system of record.

6.5.4 Roles and Responsibilities

This section defines the roles and responsibilities of the key State participants in the ERS project, as identified in the project organization described earlier. These roles and responsibilities will be refined within the Project Charter during the beginning stages of the implementation project to ensure they are understood and accepted by all involved.

6.5.4.1 Project Sponsor

The Project Sponsor is the Chief Deputy Director. The Project Sponsor assures project ownership at a high level in DOR, provides policy leadership and program direction, and reviews and resolves policy, fiscal, and resource allocation issues that cannot be resolved at lower levels.

6.5.4.2 Executive Steering Committee

The DOR Executive Steering Committee is comprised of senior members from DOR executive and business units, and from the IT organization. The DOR Executive Steering Committee performs the following functions:

- Ensures inter-Division coordination by establishing and sponsoring collaboration across department organizational boundaries;
- Assists in review and resolution of executive-level project issues;
- Provides advice and insight into project management issues; and
- Ensures adequate resources are allocated to the Project Team for successful completion of the project.

6.5.4.3 Project Director

The Project Director is the Chief Information Officer. The Project Director is accountable to the Executive Sponsor for project outcomes and performs the following functions:

- Works directly with full-time Project Manager to ensure agreed project management practices are being employed for project success and works with the Executive Sponsor and DOR Executive Steering Committee to coordinate ERS with other related efforts and to resolve inter-Division and inter-project issues;
- Facilitates resolution of all issues and monitors and optimizes resource allocation;
- Approves and manages changes to requirements, scope, and risk and monitors and documents actual project progress against the planned activity schedules;
- Reports project status to, and responds to inquiries from, executive and external stakeholders and is the principal spokesperson for the project;
- Oversees and coordinates with PMO, contract and budget management functions; and

- Manages IPOC and IV&V contracts.

6.5.4.4 Project Manager

The State Project Manager plans, directs, and oversees the day-to-day activities of State and solution vendor staff. This Project Manager will be supported by an additional resource that will be responsible for maintaining, updating, and monitoring the project schedule. The Project Manager performs the following functions:

- Serves as the principal interface with the solution vendor management team in the design, configuration, and implementation of the ERS solution;
- Directs and leads program and IT staff and contractors to ensure State responsibilities are accomplished in a correct accurate and timely manner;
- Ensures adopted project management practices are being employed as appropriate to specific tasks and acts as principal point of contact for resolution of issues;
- Responds to change requests and coordinates project activities with other ERS efforts and acts as the principal spokesperson for the objectives and status of the ERS solution;
- Ensures deliverables meet agreed-upon requirements and satisfy testing and quality assurance standards; and
- Ensures Project Oversight and IV&V recommendations are properly implemented in the project.

6.5.4.5 Project Team

The Project Team, which includes DOR program and IT staff, as well as independent contractors (e.g., procurement, architecture, process reengineering assistance), will be responsible for carrying out day-to-day activities across all phases of the project, including:

- Carries out day-to-day activities across all program and technical phases of the project;
- Conducts or directly manages daily activity such as requirements validation, process design, data conversion, environmental setup, quality assurance, testing, training, deployment, and other activities;
- Assists with various procurement tasks such as defining technical and functional requirements, providing input and reviewing the RFP, and assessing solution vendor proposal responses and demonstrations;
- Ensures that all required functionality is included in the ERS solution by lending business, process, and technical knowledge to the solution vendor;
- Ensures that the completed solution meets the functional and technical requirements defined within the contract through extensive requirements validation, process design, and system acceptance testing activities;

- Addresses organizational change management concerns and oversees the technical development and system deployment of the ERS solution;
- Plans, develops and delivers training to technical staff and end users; and
- After deployment, supports the solution on an ongoing basis with the goal of ensuring the proper functioning of the ERS solution.

6.5.4.6 Independent Project Oversight Consultant

The Independent Project Oversight Consultant will report directly to the Executive Sponsor (and also to Department of Finance) and provide the following functions:

- Reviews project planning deliverables to ensure they are sufficient and meet applicable project standards;
- Reviews ongoing project processes and activities;
- Identifies project risks and monitors the project risk management process;
- Develops Independent Project Oversight Reports and delivers them to DOR, Agency and the Department of Finance; and
- Offers suggestions for problem and issue resolution.

6.5.4.7 IV&V Vendor

An IV&V vendor will be selected as part of this project. The role of the IV&V vendor will include not only the technical review and verification of project deliverables, but also the independent testing and auditing of project deliverables against requirements. The IV&V vendor will provide the following functions:

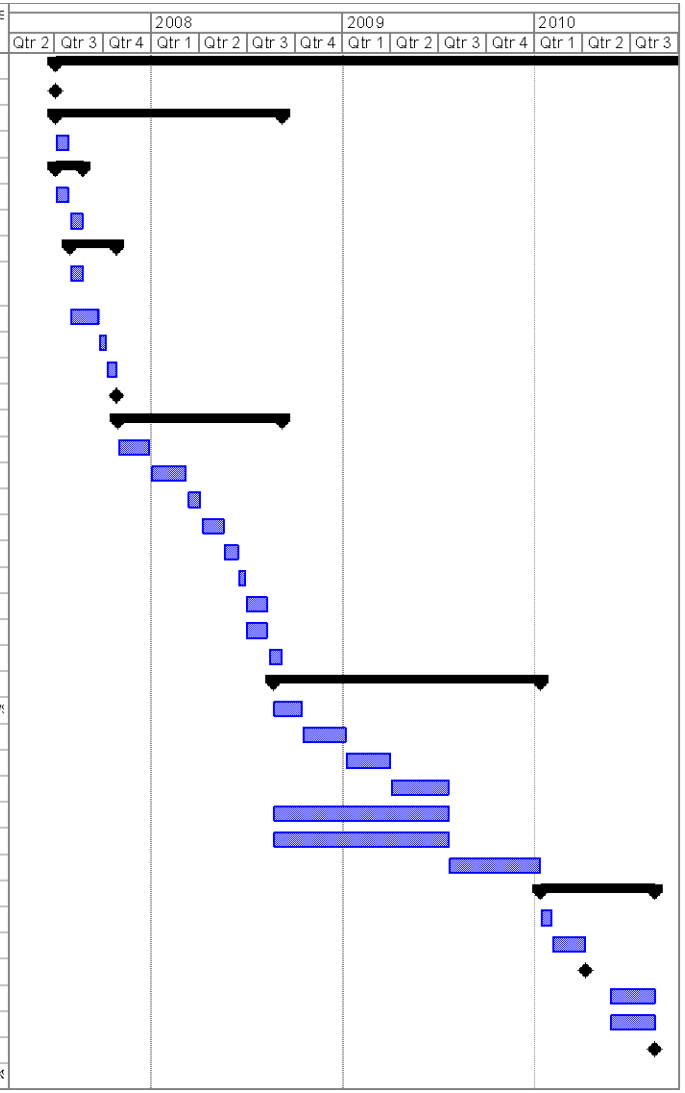
- Reviews project deliverables for quality assurance and adherence to project plan and project objectives;
- Provides independent testing and review of technical specifications and functionality; and
- Offers suggestions for problem and issue resolution.

6.5.5 Project Schedule

On the following page, a proposed project schedule is provided. At this early stage of the effort, start and end dates should be considered high-level estimates. DOR will require that Bidders provide a detailed project schedule, including recommended phasing of implementation, as part of their response to the solution vendor RFP.

Figure 7. Proposed Project Schedule

ID	Task Name	Duration	Start	Finish	Predecessors
1	**DOR ERS Project Plan**	**1076 days**	**7/2/07**	**8/15/11**	
2	Receive Feasibility Study Report (FSR) Approval	0 days	7/2/07	7/2/07	
3	**Phase 1 - Requirements and RFP Development**	**310 days**	**7/2/07**	**9/5/08**	
4	Establish Project Team/Retain Procurement Assista	20 days	7/2/07	7/27/07	2
5	**Oversight/IV&V/Contractor Support Vendors**	**40 days**	**7/2/07**	**8/24/07**	
6	Develop Oversight/IV&V/Contractor Support RF	20 days	7/2/07	7/27/07	2
7	Select Oversight/IV&V/Contractor Support Ven	20 days	7/30/07	8/24/07	6
8	**Develop COTS Solution Vendor RFP**	**65 days**	**7/30/07**	**10/26/07**	
9	Define Functional, Technical, Implementation Support Requirements	20 days	7/30/07	8/24/07	4
10	Develop COTS Solution Vendor RFP	40 days	7/30/07	9/21/07	4
11	Department and Agency Review	10 days	9/24/07	10/5/07	10
12	State Control Agency Review	15 days	10/8/07	10/26/07	11
13	Issue COTS Solution Vendor RFP	0 days	10/26/07	10/26/07	12
14	**Select COTS Solution Vendor**	**225 days**	**10/29/07**	**9/5/08**	
15	Vendors Develop Draft Proposals	45 days	10/29/07	12/28/07	13
16	Review Draft Proposals / Confidentials / Demos	50 days	12/31/07	3/7/08	15
17	Vendors Develop Final Proposals	20 days	3/10/08	4/4/08	16
18	Review & Score Final Proposals / Open Costs	30 days	4/7/08	5/16/08	17
19	Select Bidder / Issue Intent to Award	20 days	5/19/08	6/13/08	18
20	Develop Special Project Report (SPR)	10 days	6/16/08	6/27/08	19
21	Submit SPR to DOF/Approvals	30 days	6/30/08	8/8/08	20
22	Complete Internal Project Planning and Scopi	30 days	6/30/08	8/8/08	21FF
23	Submit Any Needed Budget Documents	20 days	8/11/08	9/5/08	21
24	**Phase 2 - System Development**	**365 days**	**8/19/08**	**1/11/10**	
25	Project Planning	40 days	8/19/08	10/13/08	22FS+6 days
26	Requirements Analysis/Validation	60 days	10/14/08	1/5/09	25
27	Process and Solution Design	60 days	1/6/09	3/30/09	26
28	System Development/Configuration	80 days	3/31/09	7/20/09	27
29	Infrastructure Deployment	240 days	8/19/08	7/20/09	25SS
30	Data Conversion Planning and Development	240 days	8/19/08	7/20/09	25SS
31	Unit and System/Integration Testing	125 days	7/21/09	1/11/10	30
32	**Phase 3 - System Deployment and Training**	**155 days**	**1/12/10**	**8/16/10**	**24**
33	Train Pilot District Office Users	15 days	1/12/10	2/1/10	
34	Deploy Application at Pilot Offices	45 days	2/2/10	4/5/10	33
35	Pilot Review and Acceptance	35 days	4/6/10	5/24/10	34
36	Train Remaining Users	60 days	5/25/10	8/16/10	35
37	Deploy Application at Remaining District Offices	60 days	5/25/10	8/16/10	35
38	Final Acceptance	0 days	8/16/10	8/16/10	37
39	Submit Post Implementation Evaluation Report to DOF	0 days	8/15/11	8/15/11	38FS+52 wks



6.6 Project Monitoring

Project status will be tracked and reported on an ongoing basis. Regularly scheduled status meetings including the project managers, project team members and the solution vendor will be held to discuss project progress, issues/issue resolution and next steps. Executive Steering Committee meetings will be held on a regular basis to discuss project progress, change requests and open issues. Independent/objective input will be provided to by the Independent Project Oversight Consultant and IV&V vendor. The following standard reporting mechanisms will be used:

- Status reports
- Issues lists
- Risk management updates

DOR will undertake both a “top-down” and ”bottom-up” approach to project quality. The Executive Steering Committee, Project Director and Independent Project Oversight Consultant will provide “Top-down” project oversight. The composition of the Executive Steering Committee ensures broad and balanced oversight, as it includes executive, program and IT staff. The project management team and the IV&V vendor will provide “Bottom-up” project oversight.

In addition, a Project Information Toolbox (PIT) will be developed as a single location to store, organize, track, control and disseminate all information and items produced by, and delivered to, the project. The PIT will include a file structure with defined access and permissions. It will also include an interface, such as a Web page, where individuals can obtain project information, the latest documentation, and input issues or comments to the project team. Some beginnings of this structure are currently in place (e.g., project Web sites, file structures) and additional PIT functionality can be developed when necessary for proper project control and communications.

6.7 Project Quality

In order to ensure that the project meets identified business and technical objectives and requirements, DOR will develop a Quality Assurance/Risk Management Plan based on the State’s Project Management Methodology. The plan will have the following elements:

- Measurable objectives and functional requirements;
- Acceptance testing plan;
- Regularly scheduled audits/reviews of key tasks;
- Identification of quality assurance responsibility with the Project Director; and
- Use of project oversight and IV&V services.

6.8 Change Management

The solution vendor and ERS project management team will jointly develop a change control plan and process and use the Project Director for the review and acceptance/rejection of change requests. For any decisions that cannot be made by the Project Director, the Executive Steering Committee will be used.

In the change control plan, change requests will be:

- Drafted by the Project Team;
- Reviewed and edited by the Project Managers (both State and vendor);
- Approved by the Project Director with direction from the Executive Steering Committee if necessary; and
- Implemented by the Project Team.

6.9 Authorization Required

In accordance with the reporting criteria in the Statewide Information Management Manual (SIMM), this project is reportable to the Department of Finance (DOF). The project requires an FSR in accordance with SIMM, Volume II, Guideline 5.0. Upon DOR approval of the FSR, the Department will submit a copy of the FSR project summary package to DOF. Any significant changes of 10 percent (+/-) to the cost, schedule or benefits of the original FSR estimate will be handled and approved in accordance with SIMM guidelines. A Special Project Report (SPR) will be submitted to DOF as appropriate and in accordance with SIMM guidelines. No other special authorizations are required.

7.0 Risk Management Plan

In order to manage and reduce the overall risk of the Electronic Records System (ERS) project, the Department of Rehabilitation (DOR) has developed the following Risk Management Plan. The Plan is based on SIMM guidelines and includes the components listed in the table below.

Table 28. Risk Management Plan Sub-Sections

7.1 Risk Management Approach
7.1.1 Responsible Parties
7.1.2 Risk Management Process
7.2 Risk Management Worksheet
7.2.1 Risk Assessment
7.2.2 Risk Identification
7.2.3 Risk Analysis and Quantification
7.2.4 Risk Prioritization
7.2.5 Risk Response
7.2.6 Risk Avoidance
7.2.7 Risk Acceptance
7.2.8 Risk Mitigation
7.2.9 Risk Sharing
7.3 Risk Response and Control
7.3.1 Risk Tracking
7.3.2 Risk Control

7.1 Risk Management Approach

The methodology of the Risk Management Plan will be consistent with the State of California's Project Management Methodology and the Department of Finance (DOF) Information Technology Project Oversight Framework. The following sub-sections detail the parties who will be responsible for risk management and the process they will follow.

7.1.1 Responsible Parties

DOR realizes that risk management is a dynamic process that occurs throughout the project life cycle. Therefore, several parties will be responsible for developing and implementing the Risk Management Plan. The solution vendor Project Manager will be responsible for managing the risk management process, reporting to the State Project Management Team. The specific roles of various parties are described below.

- **Executive Steering Committee –** The Executive Steering Committee will oversee that project goals and objectives are being met, and will resolve escalated issues as they arise. The Committee will be responsible for providing the project team with resources (time, staff or funding) necessary to help avoid or mitigate risks as needed.
- **Project Director –** The Project Director, who also sits on the Executive Steering Committee, will have overall responsibility for the implementation of the ERS project. The Project Director will approve the Risk Management Plan and will work with the Project Management Team and solution vendor Project Manager to develop the process for tracking and managing issues and risk factors. The Director will also be responsible for elevating risks to the Executive Steering Committee when appropriate, consistent with this plan.
- **State Project Management Team –** The State Project Management Team will be responsible for working with the solution vendor Project Manager, Independent Project Oversight (IPOC), Independent Verification and Validation (IV&V) vendor, and project team members to identify risks. They will also monitor project risks, develop mitigation measures and contingency plans, and implement those contingency plans when necessary.
- **Solution Vendor Project Manager –** The solution vendor Project Manager will be responsible for developing and submitting to DOR a baseline risk management plan. This baseline risk management plan will be developed using the risk management plan elements provided in this FSR as a starting point. The vendor will be asked to work with the State Project Management Team to implement and update this risk management plan throughout the project lifecycle.
- **IPOC and IV&V Vendors –** The project will employ an IPOC vendor and an IV&V vendor to provide insight from an IT professional and industry standards perspective. The additional review of project processes and deliverables by these resources is intended to provide a third-party, independent assessment of project risk areas with appropriate findings and recommendations.
- **Project Team –** All members of the Project Team will be involved in identifying potential risks and working with the Project Managers to carry out mitigation actions and/or contingency plans.

7.1.2 Risk Management Process

The DOR risk management process includes further development of this Risk Management Plan in accordance with the State/DOR Project Management Methodology. The solution vendor will submit a baseline Risk Management Plan to the DOR within 30 days of project initiation. This plan will be used on an ongoing basis to identify risks, quantify the potential impact of each identified risk, present mitigation plans for each identified risk, and enact appropriate risk responses. Mitigation measures and contingency plans will be developed and implemented as high-priority risks are identified and monitored. Project reserves (i.e., time, personnel, funding) will

be allocated at the discretion of the Project Director and/or Executive Steering Committee as appropriate.

7.2 Risk Management Worksheet

The following risk management worksheet will be used as the starting point for identifying and prioritizing risks as the basis of the Risk Management plan.

Table 29. Completed Risk Management Worksheet

Risk Category/ Event	Prob.	Assumptions	Preventive Measures	Contingency Measures
Project Management Risks				
Management				
Lack of participation by the VR program	Low — .20	Large numbers of users will be impacted by the new system and should be involved in the design and analysis, implementation, and testing phases. It may be difficult to coordinate the involvement of these stakeholders.	The project team will be comprised of representatives from each effected Division and Section. An Executive Steering Committee will be established with business and IT leadership to ensure needed participation. A communication plan will be developed and implemented.	Re-sequence deployment to those units best equipped for immediate implementation. Adjust schedule as necessary.

Risk Category/ Event	Prob.	Assumptions	Preventive Measures	Contingency Measures
Staffing				
Current ISS personnel lack training and experience with COTS vendor hardware and software	High — .80	DOR ISS staff may not be available to support this project due to lack of skills in solution technologies.	Assess skill sets against the new system to identify gaps. Implement a training and knowledge transfer plan that ensures ISS staff feels comfortable with the new system during all project phases. Include requirements in vendor contract to provide training to personnel on hardware and software. Regularly communicate with all ISS staff affected by the new system.	Secure contractor assistance for system implementation/ support and training.
Continuity of project personnel throughout the life of the project	Medium —.50	DOR program staff will have competing priorities throughout the project lifecycle. Additionally, due to the length of the project, there may be staff promotions, retirement or turnover.	Create detailed estimates of resource demands in advance. Communicate resource demands to senior executives as early as possible. Make ERS a project that people want to be involved with by a) setting reasonable, clearly defined expectations to facilitate project participation and b) delivering real benefit to the user so sacrifices made to provide staff is worthwhile.	Adjust the schedule as necessary.
Vendor program familiarity	Medium —.50	The vendor that is chosen must understand the intricacies of the program and the organizational structure and culture of the Department in order to be effective. This understanding will take time to develop.	Ensure the vendor's Project Manager and Project Team participates in the fit/gap analysis activities to facilitate knowledge transfer.	Provide the vendor team with training and clear program guidelines.
Schedule				
Unanticipated project schedule overruns	Medium —.50	Project schedule may be difficult to meet due to other priorities, technical issues, or deployment difficulties.	The project will be staffed by an experienced vendor project manager and will incorporate risk management and project management standards.	Adjust the schedule as necessary. Reduce/delay scope of project to reflect available schedule.
Process changes will impact business operations	Low — .20	Analysis/implementation of process changes could increase the length of the project schedule should the vendor experience significant resistance by affected State staff.	Identify significant change opportunities prior to finalizing the project schedule. Implement change management activities early on in the project communicating impacts of system implementation.	Adjust the schedule as necessary.

Risk Category/ Event	Prob.	Assumptions	Preventive Measures	Contingency Measures
Financial Risks				
Cost				
DOR underestimates project costs	Medium —.50	The cost of the project could be underestimated based on the fact that FSR project estimates are based on assumptions, past experience, and vendor RFI responses that do not reflect detailed vendor costing that is performed during a competitive RFP process.	Develop conservative cost estimates that take into consideration the complexity and risks associated with this project and the potential for cost changes.	Reduction in scope of project to reflect available budget. Request additional funding.
Vendor underestimates project costs	Low — .20	The cost of the project could be underestimated based on the fact that vendor estimates are based on assumptions that are made before entering the actual environment. A selected vendor may issue change order requests to recover these underestimated costs.	As part of the vendor selection process, DOR will ensure the proposed solution is robust enough to handle requirements and future changes easily.	Request additional funding.
Technology Risks				
Technical				
Alignment of business practices with system functionality	Medium —.50	It will be a challenge to capture some DOR business processes in a COTS automated system.	Confirm COTS functionality through vendor demonstrations and vendor customer site visits. Define the desired functional requirements and develop updated business process workflows that are consistent throughout the field. Ensure the ultimate users of the system are involved at every stage and thoroughly train users in both the new system and new processes.	Make a go/no go decision related to COTS solution during procurement process. Adjust the project schedule to allow for modifications to the COTS solution to meet DOR needs.
Unanticipated technical challenges resulting in a disruption of existing services	Low — .20	Implementation of a new technical environment and broad accessibility requirements will be challenging.	Perform environment validation, cutover rehearsals and pilot deployments to identify challenges and solutions. Conduct extensive training and preparation of ISS staff. Contract with a technical architect to support technical planning and deployment.	Ensure the new system is fully operational prior to “turning off” the old DOR systems.

Risk Category/ Event	Prob.	Assumptions	Preventive Measures	Contingency Measures
Data Conversion				
Data quality and purification	Medium —.50	Data conversion will be a problem due to the quality of data residing in existing systems.	Develop a formal plan for data analysis, conversion and integration. Institute a formal data quality assurance and improvement process. Create meaningful metrics for measuring data quality, including criteria for acceptance of the data prior to system implementation. Actively assess and improve data quality up to system implementation and thereafter.	Adjust schedule as necessary. Only convert data that is absolutely needed in the new system.
Change Management/Operational Risk				
Internal				
DOR program staff resistant to change	Low — .20	Some staff may be resistant to the new system as it will affect how they work in the future (e.g., it will require staff to share and update information in a new manner). These individuals may not participate in the project and/or may try to circumvent the new system.	Involve potentially resistant staff in the design, implementation and testing of the new system. Survey staff. Educate staff on the benefits of the new system. Design and implement change management and communication plans. Develop clear systems and procedures for the new working environment.	Conduct additional end user training.
Work may be disrupted as users learn how to use new software	Low — .20	Business operations could be interrupted during the transition from the old to the new system.	Training must be appropriate to business needs and give users confidence in the new system. The training budget has been designed to ensure multiple methodologies can be applied to ensure each staff member receives the training they need. Utilization of pilot offices will allow project team to understand and potentially deal with impacts to business performance. Provide procedural as well as technical outreach and assistance during early stages of system deployment.	Existing systems and paper files will be available during the implementation phase.
External				
Legislative changes and their timing	Medium —.50	There is a risk that legislative changes will be made to the program during any phase of the project.	Monitor proposed legislative changes and analyze their associated cost, benefits and impacts relative to their impact on the system. Utilize a flexible system architecture that enables changes in business processes to be reflected in the system quickly through the adaptation of workflows and user defined fields.	Follow change management procedures. Modify business processes as mandated.

7.2.1 Risk Assessment

The risk management worksheet was completed to assess the risks involved in the implementation of the ERS solution. Four broad risk areas were examined, including project management risk, financial risk, technology risk, and change management/ operational risk. A preliminary assessment of the primary risk areas is outlined in the following table.

Table 30. Primary Risk Areas for the ERS Project

Risk Area	Risk Level
Project Management Risk	Medium
Financial Risk	Medium
Technology Risk	Medium
Change Management/Operational Risk	Low

- Project management risk is medium due to staffing and schedule risks that should be monitored to ensure the project remains on schedule and on budget and be supported effectively by State resources.
- Financial risk is medium due to the complexity of the project from a program and an accessibility perspective and the resulting difficulty in estimating an accurate budget.
- Technology risk is medium due to some difficulties expected in implementing accessibility requirements and performing data conversion. Technical risk is tempered as the proposed solution is a COTS solution that must fit within existing DOR and Department of Technology Services (DTS) data center architecture requirements.
- Change management/operational risk is low due to the lack of support from the current system and the significant benefits the new system should bring to the user community. However, this risk will be monitored appropriately and key stakeholders will be incorporated into all phases of project implementation in order to facilitate change management processes.

7.2.2 Risk Identification

Risks for the ERS project were identified through the use of project team brainstorming, historical information, management interviews, and initial vendor information. The following risk areas were identified:

- Project Management
  - Management
  - Staffing
- Technology Risks
  - Technical
  - Data Conversion

- Schedule
- Financial Risks
  - Cost
- Change Management/ Operational Risk
  - Internal
  - External

As new risks are identified during the life of the project, they will be fit into these categories or new categories as appropriate. The Project Management Team will meet regularly to review new risk assessments as well as ongoing risk efforts to:

- Evaluate and determine the risk exposure and severity;
- Identify appropriate action to avoid or mitigate the risk; and
- When appropriate, elevate the risk assessment and response to the Project Director or Executive Steering Committee.

The Project Management Team will meet with the Vendor Project Manager, IPOC, and IV&V vendor to review and modify the Risk Management Plan at the beginning of each project stage.

7.2.3 Risk Analysis and Quantification

Project risks will be tracked and analyzed on an ongoing basis, and discussed as part of regular project management meetings. Risks will be analyzed based on the type of risk, probability of the risk occurring, the ability to mitigate the risk and the potential effect of the risk.

7.2.4 Risk Prioritization

Based on the risk analysis, each risk has been prioritized and ranked. Those risks with high priority will receive the most attention from the project team. Low priority risks will be monitored on an as-needed basis. Based on the risk analysis and quantification completed to date, the following preliminary high and medium risks have been identified in priority order:

- High Risks
  - Project Management Risk — Lack of relevant experience of IT personnel
- Medium Risks
  - Project Management — Lack of continuity of project personnel
  - Project Management — Project schedule overruns
  - Technology — Data quality and purification
  - Financial — Underestimation of project costs
  - Technology — Alignment of business process with technical functionality
  - Change Management/Operational Risk — Legislative changes and timing
  - Project Management — Vendor program familiarity

7.2.5 Risk Response

As the project proceeds and risk events occur, appropriate risk response actions will be implemented. Preventative and contingency measures have been identified for each risk in the risk management worksheet.

Project risk management will be ensured by the project managers and team using standard project control procedures, including the risk management and escalation procedures defined in the DOF Information Technology Project Oversight Framework.

DOR will also contract with independent consultants to provide project oversight and IV&V services to ensure that best management practices are employed and that anticipated outcomes are reached through regular audit and oversight activities.

7.2.6 Risk Avoidance

The implementation of a new, enterprise-wide business system involves a significant amount of risk in terms of business process analysis, implementing and fine tuning processes, and implementing technological solutions to support the processes. In the case of ERS, many of these risks will be avoided by relying on COTS best practices inherent in the application.

7.2.7 Risk Acceptance

DOR accepts the risks identified in the risk management worksheet.

7.2.8 Risk Mitigation

Preventive measures will be taken in each of the risk areas to mitigate the chances of risk occurrence. These measures are identified in the risk management worksheet. As new risks are identified throughout the project life cycle, appropriate preventive measures will be developed. Key risk-mitigation strategies include implementing a COTS software solution, using pilots, phasing of functionality, and contracting for project management and project oversight/IV&V support.

7.2.9 Risk Sharing

Efforts to share risks will be set in place by contracting with a reputable and competent integration vendor to develop and implement the solution. Service-level agreements and other contractual stipulations will be established to share the risk of the project as much as appropriate.

7.3 Risk Response and Control

The DOR risk response and control process includes further development of this risk management plan in accordance with State and industry-standard methodologies. This plan will be used on an ongoing basis to identify risks, quantify the potential impact of each identified risk, present mitigation plans for each identified risk and enact

appropriate risk responses. Mitigation measures and contingency plans will be developed and implemented as high-priority risks are identified and monitored. To ensure that project risks are monitored and responded to effectively, the project team will use a variety of methods to track and control potential risks.

7.3.1 Risk Tracking

As stated above, the solution vendor will be required to complete a full Risk Assessment and Risk Management Plan as one of its initial deliverables. The Plan shall include a system for tracking identified risks through all phases of the project.

The risk tracking system will include a tool that:

- Assigns a unique number to each risk;
- Tracks the assigned ratings, as well as efforts to mitigate the risk; and
- Provides the capability to review and report on risks to the rest of the Project Team.

The Project Management Team will meet regularly to review ongoing efforts to mitigate risk, as well as to assess any new risks identified.

7.3.2 Risk Control

Risk control is necessary to help prevent failure on a project. The project team will ensure the Risk Management Plan is executed so that it can respond to risk events before they become serious problems. As risk events occur, the project team will implement the appropriate contingency plans to ensure the success of the project. The Risk Management Plan will be updated as anticipated risk events occur or are surpassed, and as actual risk events are evaluated and resolved.

8.0 Economic Analysis Worksheets

The Economic Analysis Worksheets included in this section provide a comparative analysis of the costs associated with the two alternatives for implementation of an Electronic Records System for DOR.

The instructions for the Economic Analysis Worksheets require full analysis of only those alternatives that "satisfactorily meet the objectives and functional requirements." Neither the existing system (status quo) nor enhancement of the existing system will fully meet these requirements. As identified in the Proposed Solution, the two alternatives that meet the minimum requirements are as follows:

- Implement a COTS Solution
- Develop a Customized Solution

Selected summary worksheets and associated assumptions are provided in the following pages.

8.1 Existing System Cost Worksheet

EXISTING SYSTEM/BASELINE COST WORKSHEET

Department: Department of Rehabilitation
All costs to be shown in whole (unrounded) dollars.
Date Prepared: 6/27/2006

Project: Electronic Records System Project

	FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information Technology Costs														
Staff (salaries & benefits)			13.0	$1,015,896	13.0	$1,015,896	13.0	$1,015,896	13.0	$1,015,896	13.0	$1,015,896	**65.0**	**$ 5,079,482**
Hardware Lease/Maintenance				$0		$0		$0		$0		$0		**$ -**
Software Maintenance/Licenses				$ -		$ -		$ -		$ -		$ -		**$ -**
Contract Services				$ -		$ -		$ -		$ -		$ -		**$ -**
Data Center Services				$ 2,130,000		$ 2,130,000		$ 2,130,000		$ 2,130,000		$ 2,130,000		**$ 10,650,000**
Agency Facilities				$ -		$ -		$ -		$ -		$ -		**$ -**
Other														**$ -**
Total IT Costs				**$ 3,145,896**		**$ 3,145,896**		**$ 3,145,896**		**$ 3,145,896**	**13.00**	**$ 3,145,896**		**$ 15,729,482**
Continuing Program Costs:														
Staff			1962.0	$124,959,488	1962.0	$124,959,488	1962.0	$124,959,488	1962.0	$124,959,488	1962.0	$124,959,488	**9810.0**	**$ 624,797,441**
Other (OE&E)				$47,538,587		$47,538,587		$47,538,587		$47,538,587		$47,538,587		**$ 237,692,933**
Total Program Costs				**$ 172,498,075**		**$ 172,498,075**		**$ 172,498,075**		**$ 172,498,075**		**$ 172,498,075**		**$ 862,490,374**
TOTAL EXISTING SYSTEM COSTS				**$ 175,643,971**		**$ 175,643,971**		**$ 175,643,971**		**$ 175,643,971**		**$ 175,643,971**		**$ 878,219,856**

8.1.1 Existing System Cost Assumptions

The following existing costs have been estimated:

- The existing staff (PY) figure is based on the current filled IT staff positions within DOR that support FCS. The staff's current salary and benefits were used to calculate existing system IT staffing. It is assumed these costs will remain constant.
- The existing Data Center Services costs of $2,130,000 include FCS's representative portion of the $5M+ annual enterprise-wide mainframe system and network services support performed by Department of Technology Services (formerly Health and Human Services Data Center (HHSDC)).
- Hardware Lease/Maintenance, Agency Facilities, Software Maintenance/Licenses, Contract Services, Agency Facilities, and Other Costs are excluded from the analysis because existing amounts would not change with deployment of ERS and decommissioning of FCS.
- Staff costs and OE&E are based on current costs. It is assumed these will remain constant.

8.2 Proposed Alternative Cost Worksheet – Implement COTS Solution

Department: Department of Rehabilitation
Project: Electronic Records System Project

All Costs Should be shown in whole (unrounded) dollars.

	FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)			4.0	$ 398,372	13.0	$ 1,153,000	13.0	$ 1,153,000		$ -		$ -	30.0	$ 2,704,372
Hardware Purchase		$ -		$ -		$ 20,000		$ -		$ -		$ -		$ 20,000
Software Purchase/License		$ -		$ -		$ 523,000		$ 75,000		$ -		$ -		$ 598,000
Telecommunications		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Contract Services														
Software Customization		$ -		$ -		$ 2,921,000		$ 3,592,600		$ -		$ -		$ 6,513,600
Project Management		$ -		$ 39,800		$ 407,400		$ 474,560		$ -		$ -		$ 921,760
Project Oversight		$ -		$ 19,900		$ 203,700		$ 237,280		$ -		$ -		$ 460,880
IV&V Services		$ -		$ 11,940		$ 122,220		$ 142,368		$ -		$ -		$ 276,528
Other Contract Services		$ -		$ 336,250		$ 69,000		$ 69,000		$ -		$ -		$ 474,250
TOTAL Contract Services		$ -		$ 407,890		$ 3,723,320		$ 4,515,808		$ -		$ -		$ 8,647,018
Data Center Services		$ -		$ 3,600		$ 105,000		$ 150,000		$ -		$ -		$ 258,600
Agency Facilities		$ -				$ -		$ -		$ -		$ -		$ -
Other		$ -		$ 54,000		$ 132,000		175159		$ -		$ -		$ 361,159
Total One-time IT Costs	**0.0**	**$ -**	**4.0**	**$ 863,862**	**13.0**	**$ 5,656,320**	**13.0**	**$ 6,068,967**	**0.0**	**$ -**	**0.0**	**$ -**	**30.0**	**$ 12,589,149**
Continuing IT Project Costs														
Staff (Salaries & Benefits)									10.0	$ 931,177	10.0	$ 931,177	20.0	$ 1,862,355
Hardware Lease/Maintenance		$ -								$ -		$ -		$ -
Software Maintenance/Licenses		$ -								$ 75,000		$ 75,000		$ 150,000
Telecommunications		$ -												$ -
Contract Services		$ -								$ 450,000		$ 450,000		$ 900,000
Data Center Services		$ -								$ 150,000		$ 150,000		$ 300,000
Agency Facilities		$ -												$ -
Other		$ -		$ -		$ -		$ -		$ 31,955		$ 31,955		$ 63,910
Total Continuing IT Costs	**0.0**	**$ -**	**0.0**	**$ -**	**0.0**	**$ -**	**0.0**	**$ -**	**10.0**	**$ 1,638,132**	**10.0**	**$ 1,638,132**	**20.0**	**$ 3,276,265**
Total Project Costs	**0.0**	**$ -**	**4.0**	**$ 863,862**	**13.0**	**$ 5,656,320**	**13.0**	**$ 6,068,967**	**10.0**	**$ 1,638,132**	**10.0**	**$ 1,638,132**	**50.0**	**$ 15,865,414**
Continuing Existing Costs														
Information Technology Staff			10.0	$ 707,479	6.0	$ 345,165	6.0	$ 345,165	3.0	$ 84,719	3.0	$ 84,719	28.0	$ 1,567,246
Other IT Costs		$ -		$ 2,130,000		$ 2,130,000		$ 2,130,000		$ -		$ -		$ 6,390,000
Total Continuing Existing IT Costs	**0.0**	**$ -**	**10.0**	**$ 2,837,479**	**6.0**	**$ 2,475,165**	**6.0**	**$ 2,475,165**	**3.0**	**$ 84,719**	**3.0**	**$ 84,719**	**28.0**	**$ 7,957,246**
Program Staff			1961.0	$ 124,869,534	1956.0	$ 124,477,682	1956.0	$ 124,477,682	1962.0	$ 124,959,488	1962.0	$ 124,959,488	9797.0	$ 623,743,874
Other Program Costs (OE&E)		$ -		$ 47,538,587		$ 47,538,587		$ 47,538,587		$ 47,538,587		$ 47,538,587		$ 237,692,933
Total Continuing Existing Program Costs	**0.0**	**$ -**	**1961.0**	**$ 172,408,120**	**1956.0**	**$ 172,016,268**	**1956.0**	**$ 172,016,268**	**1962.0**	**$ 172,498,075**	**1962.0**	**$ 172,498,075**	**9797.0**	**$ 861,436,807**
Total Continuing Existing Costs	**0.0**	**$ -**	**1971.0**	**$ 175,245,599**	**1962.0**	**$ 174,491,433**	**1962.0**	**$ 174,491,433**	**1965.0**	**$ 172,582,794**	**1965.0**	**$ 172,582,794**	**9825.0**	**$ 869,394,053**
TOTAL ALTERNATIVE COSTS	**0.0**	**$ -**	**1975.0**	**$ 176,109,461**	**1975.0**	**$ 180,147,753**	**1975.0**	**$ 180,560,400**	**1975.0**	**$ 174,220,926**	**1975.0**	**$ 174,220,926**	**9875.0**	**$ 885,259,467**
INCREASED REVENUES		$ -		$ -		$ -		$ -		$ -		$ -		$ -

8.2.1 Proposed Alternative Cost Assumptions

The following one-time IT project costs for a COTS solution have been estimated:

- The COTS solution project costs are based on acquiring software that supports DOR's vocational rehabilitation business functions and processing requirements.
- DOR will redirect IT and program resources to the ERS Project as follows:
  - Three IT PY's and one program PY during the 12-month procurement timeframes (Phase 1).
  - Seven IT PY's and six program PY's during the 24-month system development and deployment timeframes (Phases 2 and 3).
- Hardware costs of $20,000 for four servers deployed at DOR for the testing/training environment.
- The one-time Software Purchase/License cost for a COTS solution is estimated to be $523,000 at the end of FY 2008/09. This cost estimate is based on vocational rehabilitation and related case management products currently available in the marketplace. An additional $75,000 per year of one-time cost is required to cover database licensing costs for the 24 months of the implementation period.
- The one-time contract services cost for a solution vendor to implement a COTS solution is estimated to be $6,513,600. These services include business requirements definition, process and solution design, database design, COTS system configuration, limited customization of COTS design and build, interface development, data conversion, testing (unit, system/integration, and acceptance), training, and project management services.

  Costs have been estimated across fiscal years based upon when the specific development task would likely take place.
- One-time Project Management costs for the COTS solution project are estimated to be $921,760 This cost is based on 64 hours per week of project management support across the 24-month implementation period. Costs cover two contracted resources, a full-time State Project Manager and a part-time Project Management Support resource.
- The one-time Independent Project Oversight Consultant (IPOC) cost for the COTS solution project is estimated to be $460,880. This cost is based on 260 hours of limited support (approximately 5 hours per week) during the

procurement phases, increasing to 624 hours of annual support (approximately 12 hours per week) over the implementation period.

- The one-time IV&V contract cost for the COTS solution project is estimated to be $276,528. This cost is based on 156 hours of limited support (approximately 3 hours per week) during the procurement phases, increasing to 312 hours of annual support (approximately 6 hours per week) over the implementation period.
- Other contract services include the following:
  - A cost of $281,250 will be incurred during FY 07/08 for procurement assistance (RFP development and vendor selection activities).
  - One-time technical architecture assistance of $192,000, with limited support (200 hours) during the procurement timeframe, but increased support (500 hours) during the implementation period to support DOR's architectural development, review and decision-making.
- One-time data center services costs include:
  - $105,000 for set up of four production environment servers deployed at DTS during the first year of implementation.
  - $150,000 for production system hardware leasing and DTS operations and services costs during the final 12 months of system implementation.
  - $3,600 for 40 hours of DTS staff support (e.g., RFP and vendor proposal review) of the ERS procurement effort.
- Other one-time costs include the following:
  - $54,000 for fees to cover 600 hours of DGS support of the ERS procurement (8 hours per week for 75 weeks).
  - $307,159 for training costs which covers travel for trainers and training materials as well as additional technical staff training costs (e.g., database, operating system, and other software technologies that will be new to DOR) beyond the solution vendor's standard training.

The total one-time cost for the purchase, design, configuration, and implementation of the proposed solution, less redirection of staff resources, is $9,884,768

The following Continuing Costs for a COTS solution have been estimated:

- IT Staff costs are 10.0 PY's for system maintenance functions including help desk support, application maintenance, database administration, management reporting, system administration and other activities. Seven IT PY's will shift from one-time project activities, while three will be redirected from the decommissioning of FCS upon ERS deployment. Since the COTS solution will require less resources to maintain, DOR will be able to redirect 3 PY's to support the remaining mainframe applications that require modification to meet changing business needs (These modifications have not been accomplished to date due to a lack of resources and a backlog of change requests is continuous).
- Continuing software costs include $75,000 per year to cover estimated database licensing costs across five processors.
- Maintenance costs of $450,000 per year taken from analysis of Request for Information vendor responses, and prior experience of vendor pricing. This amount covers a standard 22% of one-time license costs for maintenance, support, upgrade, etc. of a COTS solution of similar scope (functionality, user base). This amount also includes additional annual support for yearly enhancements for Federal and State regulatory changes.
- Continuing Data Center costs are $150,000 annually to cover production system hardware leasing and DTS operations and services costs.
- Other ongoing costs include $31,955 for annual training-related travel during ERS operations.

Total ongoing annual cost for COTS ERS operations is $707,000 less redirected staff resources.

8.3 Alternative 1 Cost Worksheet – Build Custom Solution

ALTERNATIVE #1: CUSTOM DEVELOPMENT SOLUTION

Date Prepared: 6/27/2006

Department: Department of Rehabilitation
Project: Electronic Records System Project

All Costs Should be shown in whole (unrounded) dollars.

	FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)			4.0	$ 398,372	13.0	$ 1,152,538	13.0	$ 1,152,538	13.0	$ 1,152,538			43.0	$ 3,855,986
Hardware Purchase		$ -		$ -		$ 20,000		$ 5,000		$ 5,000		$ -		$ 30,000
Software Purchase/License		$ -		$ -		$ 141,000		$ 75,000		$ 75,000		$ -		$ 291,000
Telecommunications		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Contract Services														
Software Customization		$ -		$ -		$ 3,744,000		$ 6,400,000		$ 2,976,000		$ -		$ 13,120,000
Project Management		$ -		$ -		$ 480,000		$ 480,000		$ 480,000		$ -		$ 1,440,000
Project Oversight		$ -		$ 58,500		$ 140,400		$ 140,400		$ 140,400		$ -		$ 479,700
IV&V Services		$ -		$ 31,200		$ 124,800		$ 124,800		$ 124,800		$ -		$ 405,600
Other Contract Services		$ -		$ 336,250		$ 68,750		$ 68,750		$ 68,750				$ 542,500
TOTAL Contract Services		$ -		$ 425,950		$ 4,557,950		$ 7,213,950		$ 3,789,950		$ -		$ 15,987,800
Data Center Services		$ -		$ 3,600		$ -		$ 180,000		$ 150,000				$ 333,600
Agency Facilities		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Other		$ -		$ 54,000		$ 66,000		$ 66,000		$ 175,159				$ 361,159
Total One-time IT Costs	**0.0**	**$ -**	**4.0**	**$ 881,922**	**13.0**	**$ 5,937,488**	**13.0**	**$ 8,692,488**	**13.0**	**$ 5,347,646**	**0.0**	**$ -**	**43.0**	**$ 20,859,545**
Continuing IT Project Costs														
Staff (Salaries & Benefits)											10.0	$ 931,177	10.0	$ 931,177
Hardware Lease/Maintenance		$ -										$ 5,000		$ 5,000
Software Maintenance/Licenses		$ -										$ 75,000		$ 75,000
Telecommunications		$ -												$ -
Contract Services		$ -										$ 450,000		$ 450,000
Data Center Services		$ -										$ 150,000		$ 150,000
Agency Facilities		$ -												$ -
Other		$ -										$ 29,050		$ 29,050
Total Continuing IT Costs	**0.0**	**$ -**	**0.0**	**$ -**	**0.0**	**$ -**	**0.0**	**$ -**	**0.0**	**$ -**	**10.0**	**$ 1,640,227**	**0.0**	**$ 1,640,227**
Total Project Costs	**0.0**	**$ -**	**4.0**	**$ 881,922**	**13.0**	**$ 5,937,488**	**13.0**	**$ 8,692,488**	**13.0**	**$ 5,347,646**	**10.0**	**$ 1,640,227**	**43.0**	**$ 22,499,772**
Continuing Existing Costs														
Information Technology Staff			10.0	$ 707,479	6.0	$ 345,165	6.0	$ 345,165	6.0	$ 345,165	3.0	$ -	28.0	$ 1,742,973
Other IT Costs		$ -		$ 2,130,000		$ 2,130,000		$ 2,130,000		$ 2,130,000		$ -		$ 8,520,000
Total Continuing Existing IT Costs	**0.0**	**$ -**	**10.0**	**$ 2,837,479**	**6.0**	**$ 2,475,165**	**6.0**	**$ 2,475,165**	**6.0**	**$ 2,475,165**	**3.0**	**$ -**	**28.0**	**$ 10,262,973**
Program Staff			1961.0	$ 124,869,534	1956.0	$ 124,477,682	1956.0	$ 124,477,682	1956.0	$ 124,477,682	1962.0	$ 124,959,488	7829.0	$ 623,262,068
Other Program Costs (OE&E)		$ -		$ 47,538,587		$ 47,538,587		$ 47,538,587		$ 47,538,587		$ 47,538,587		$ 237,692,933
Total Continuing Existing Program Costs	**0.0**	**$ -**	**1961.0**	**$ 172,408,120**	**1956.0**	**$ 172,016,268**	**1956.0**	**$ 172,016,268**	**1956.0**	**$ 172,016,268**	**1962.0**	**$ 172,498,075**	**7829.0**	**$ 860,955,000**
Total Continuing Existing Costs	**0.0**	**$ -**	**1971.0**	**$ 175,245,599**	**1962.0**	**$ 174,491,433**	**1962.0**	**$ 174,491,433**	**1962.0**	**$ 174,491,433**	**1965.0**	**$ 172,498,075**	**7857.0**	**$ 871,217,974**
TOTAL ALTERNATIVE COSTS	**0.0**	**$ -**	**1975.0**	**$ 176,127,521**	**1975.0**	**$ 180,428,921**	**1975.0**	**$ 183,183,921**	**1975.0**	**$ 179,839,080**	**1975.0**	**$ 174,138,302**	**7900.0**	**$ 893,717,746**
INCREASED REVENUES		0		0		$ -		$ -		$ -		$ -		**0**

8.3.1 Alternative 1 Cost Assumptions

The following one-time IT project costs for a customized solution have been estimated:

- The custom solution project costs are based on implementing a new application that supports DOR's vocational rehabilitation business functions and processing requirements.
- DOR will redirect IT and program resources to the ERS Project as follows:
  - Three IT PYs and one program PY during the 12-month procurement timeframes (Phase 1).
  - Seven IT PYs and six program PYs during the 36-month system development and deployment timeframes (Phases 2 and 3).
- Hardware costs of $20,000 for four servers deployed at DOR for the testing/training environment.
- The one-time Software Purchase/License cost for a custom solution comprises development and third-party tools (e.g., reporting). This is estimated to be $66,000 in the first year of development. An additional $75,000 per year of one-time cost is required to cover database licensing costs for three years of development.
- The one-time contract services cost for a solution vendor to implement a customized solution is estimated to be $13,120,000. These services include business requirements definition, process and solution design, database design, application design, application development, interface development, data conversion, testing (unit, system/integration, and acceptance), training, and project management services.

  Costs have been estimated across the three fiscal years based upon when the specific development task would likely take place.
- One-time Project Management costs for the COTS solution project are estimated to be $1,440,000. This cost is based on 64 hours per week of project management support across the 36-month implementation period. Costs cover two contracted resources, a full-time State Project Manager and a part-time Project Management Support resource.
- The one-time Independent Project Oversight Consultant (IPOC) cost for the COTS solution project is estimated to be $479,700. This cost is based on 260 hours of limited support (approximately 5 hours per week) during the procurement phases, increasing to 624 hours of annual support (approximately 12 hours per week) over the implementation period.

- The one-time IV&V contract cost for the COTS solution project is estimated to be $405,600. This cost is based on 156 hours of limited support (approximately 3 hours per week) during the procurement phases, increasing to 624 hours of annual support (approximately 12 hours per week) over the implementation period. IV&V activities for a custom-developed system are much broader than for a COTS implementation.
- Other contract services include the following:
  - A cost of $281,250 will be incurred during FY 07/08 for procurement assistance (RFP development and vendor selection activities).
  - One-time technical architecture assistance of $261,250, with limited support (200 hours) during the procurement timeframe, but increased support (750 hours) during the implementation period to support DOR's architectural development, review and decision-making.
- One-time data center services costs include:
  - $105,000 for set up of four production environment servers deployed at DTS during the second year of implementation.
  - $150,000 for production system hardware leasing and DTS operations and services costs during the latter 18 months of system implementation.
  - $3,600 for 40 hours of DTS staff support (e.g., RFP and vendor proposal review) of the ERS procurement effort.
- Other one-time costs include the following:
  - $54,000 for fees to cover 600 hours of DGS support of the ERS procurement (8 hours per week for 75 weeks).
  - $307,159 for training costs which covers travel for trainers and training materials as well as additional technical staff training costs (e.g., database, operating system, and other software technologies that will be new to DOR) beyond the solution vendor's standard training.

The total one-time cost for the analysis, design, development and implementation of the proposed solution, less redirection of staff resources, is $17,003,559.

The following Continuing Costs for a customized solution have been estimated:

- IT Staff costs are 10.0 PY's for system maintenance functions including help desk support, application maintenance, database administration, management reporting, system administration and other activities. Seven

IT PY's will shift from one-time project activities, while three will be redirected from the decommissioning of FCS upon ERS deployment.

- Continuing hardware costs of $5000 covers an annual 25% of hardware costs to cover a four-year ERS testing/training hardware refresh cycle.
- Continuing software costs include $75,000 per year to cover estimated database licensing costs across five processors.
- Maintenance cost estimate of $450,000 is equivalent to COTS solution amount. While standard 22% of one-time license costs for maintenance, support, upgrade, etc. of a COTS solution do not apply, a similar amount is necessary for vendor support of application after deployment. This would also include additional annual support for yearly enhancements for Federal and State regulatory changes.
- Continuing Data Center costs are $150,000 annually to cover production system hardware leasing and DTS operations and services costs.
- Other ongoing costs include $29,050 for annual training-related travel during ERS operations.

Total ongoing annual cost for custom ERS operations is $709,050, less redirected staff resources.

8.4 Project Funding Plan Worksheets

Project Funding Plan

All Costs to be in whole (unrounded) dollars

Date Prepared: 6/27/2006

	FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	**0.0**	**0**	**4.0**	**863,862**	**13.0**	**5,656,320**	**13.0**	**6,068,967**	**10.0**	**1,638,132**	**10.0**	**1,638,132**		**15,865,414**
RESOURCES TO BE REDIRECTED														
Staff	0.0	0	4.0	398,372	13.0	1,153,000	13.0	1,153,000	10.0	931,177	10.0	931,177	**50.0**	**4,566,727**
Funds:														
Existing System		0		0		0		0		2,130,000		2,130,000		**4,260,000**
Other Fund Sources (Redirected Federal Fund)*		0		465,490		4,503,320		4,915,967						**9,884,777**
TOTAL REDIRECTED RESOURCES	**0.0**	**0**	**4.0**	**863,862**	**13.0**	**5,656,320**	**13.0**	**6,068,967**	**10.0**	**3,061,177**	**10.0**	**3,061,177**	**50.0**	**18,711,504**
ADDITIONAL PROJECT FUNDING NEEDED														
One-Time Project Costs		0		0		0		0		0		0	**0.0**	**0**
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**
TOTAL PROJECT FUNDING	**0.0**	**0**	**4.0**	**863,862**	**13.0**	**5,656,320**	**13.0**	**6,068,967**	**10.0**	**3,061,177**	**10.0**	**3,061,177**	**40.0**	**18,711,504**
Difference: Funding - Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,423,045	0.0	1,423,045	**0.0**	**2,846,090**

Total Estimated Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,423,045	0.0	1,423,045	**0.0**	**2,846,090**

ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET (DOF Use Only)

Department: Department of Rehabilitation
Project: Electronic Records System Project

Date Prepared: 6/27/2006

Annual Project Adjustments	FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		Net Adjustments	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-time Costs														
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0		
(A) Annual Augmentation /(Reduction)	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**		
(B) Total One-Time Budget Actions	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**
Continuing Costs														
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0		
(C) Annual Augmentation /(Reduction)	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**		
(D) Total Continuing Budget Actions	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**
Total Annual Project Budget Augmentation /(Reduction) [A + C]	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**		

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]	**0.0**	**0**

Annual Savings/Revenue Adjustments

Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,423,045	0.0	0
Increased Program Revenues		0		0		0		0		0		0

8.5 Economic Analysis Summary Worksheet

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 6/27/2006

Department: Department of Rehabilitation
Project: Electronic Records System Project

All costs to be shown in whole (unrounded) dollars.

	FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM														
Total IT Costs	0.0	0	0.0	3,145,896	0.0	3,145,896	0.0	3,145,896	0.0	3,145,896	13.0	3,145,896	0.0	15,729,482
Total Program Costs	0.0	0	0.0	172,498,075	0.0	172,498,075	0.0	172,498,075	0.0	172,498,075	0.0	172,498,075	0.0	862,490,374
Total Existing System Costs	0.0	0	0.0	175,643,971	0.0	175,643,971	0.0	175,643,971	0.0	175,643,971	0.0	175,643,971	0.0	878,219,856
PROPOSED ALTERNATIVE	**COTS SOLUTION**				**COTS**									
Total Project Costs	0.0	0	4.0	863,862	13.0	5,656,320	13.0	6,068,967	10.0	1,638,132	10.0	1,638,132	50.0	15,865,414
Total Cont. Exist. Costs	0.0	0	1971.0	175,245,599	1962.0	174,491,433	1962.0	174,491,433	1965.0	172,582,794	1965.0	172,582,794	9825.0	869,394,053
Total Alternative Costs	0.0	0	1975.0	176,109,461	1975.0	180,147,753	1975.0	180,560,400	1975.0	174,220,926	1975.0	174,220,926	9875.0	885,259,467
COST SAVINGS/AVOIDANCES	0.0	0	(1975.0)	(465,490)	(1975.0)	(4,503,782)	(1975.0)	(4,916,429)	(1975.0)	1,423,045	(1975.0)	1,423,045	(9875.0)	(7,039,611)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	0.0	0	(1975.0)	(465,490)	(1975.0)	(4,503,782)	(1975.0)	(4,916,429)	(1975.0)	1,423,045	(1975.0)	1,423,045	(9875.0)	(7,039,611)
Cum. Net (Cost) or Benefit	0.0	0	(1975.0)	(465,490)	(3950.0)	(4,969,272)	(5925.0)	(9,885,701)	(7900.0)	(8,462,656)	(9875.0)	(7,039,611)		
ALTERNATIVE #1	**CUSTOM DEVELOPMENT SOLUTION**				**CUSTOM**									
Total Project Costs	0.0	0	4.0	881,922	13.0	5,937,488	13.0	8,692,488	13.0	5,347,646	10.0	1,640,227	43.0	22,499,772
Total Cont. Exist. Costs	0.0	0	1971.0	175,245,599	1962.0	174,491,433	1962.0	174,491,433	1962.0	174,491,433	1965.0	172,498,075	7857.0	871,217,974
Total Alternative Costs	0.0	0	1975.0	176,127,521	1975.0	180,428,921	1975.0	183,183,921	1975.0	179,839,080	1975.0	174,138,302	7900.0	893,717,746
COST SAVINGS/AVOIDANCES	0.0	0	(1975.0)	(483,550)	(1975.0)	(4,784,950)	(1975.0)	(7,539,950)	(1975.0)	(4,195,108)	(1975.0)	1,505,669	(7900.0)	(15,497,889)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	0.0	0	(1975.0)	(483,550)	(1975.0)	(4,784,950)	(1975.0)	(7,539,950)	(1975.0)	(4,195,108)	(1975.0)	1,505,669	(7900.0)	(15,497,889)
Cum. Net (Cost) or Benefit	0.0	0	(1975.0)	(483,550)	(3950.0)	(5,268,500)	(5925.0)	(12,808,450)	(7900.0)	(17,003,558)	(9875.0)	(15,497,889)		